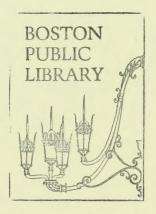
GOVDOC BRA 599 Vol. 3-4



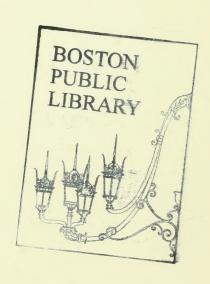


BRA 599 Vol. 3-4

HYNES AUDITORIUM EXPANSION BOSTON, MASSACHUSETTS

Final Report (Volume III)

Cost Analysis



CITY OF BOSTON Kevin H. White, Mayor

BOSTON REDEVELOPMENT AUTHORITY Robert J. Ryan, Director

PUBLIC FACILITIES DEPARTMENT Donald B. Manson, Director

Back Bay B 65 R HA



INTRODUCTION

At the request of the Boston Redevelopment Authority, Kallmann, McKinnell & Wood, Architects, Inc. have put together the following Supplement to the Cost Analysis portion of the Final Report. Using figures furnished by Perez Associates(t), Hanscomb, and the Boston Redevelopment Authority (*), the Architects have attempted to identify those costs associated with the Hynes Auditorium Expansion.

Given the preliminary level of development and the transition from City to State, the figures provided are subject to further refinement pending a more detailed account of the Scope of Work by the State.

Also provided in this Supplement is a Table of Construction Costs in which the Hynes is compared to other convention facilities. The Table clearly indicates that the \$108/sq. ft. construction cost of the Hynes Auditorium Expansion is less than one-half the cost of two of the highest quality and most expensive facilities, Baltimore and San Francisco, with whom the Hynes must be able to compete.

HENRY A. WOOD AIA



HYNES AUDITORIUM EXPANSION - PROJECT COST SUMMARY

I. PRE-CONSTRUCTION ACTIVITIES:

Acquisition of Prudential Property (65,886 s.f.) \$4,000,000*
Relocation Costs (10 Businesses) 1,500,000*

Total Pre-Construction Cost: \$5,500,000

II. CONSTRUCTION COSTS:

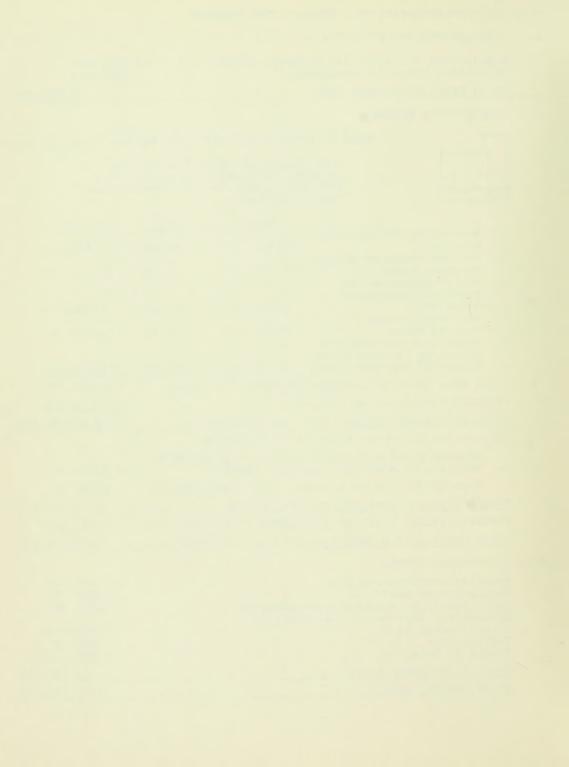


III.

Base Building Costs under the following assumptions:

- Lump Sum/Competitive Bid Contract
- . 27 Month Shutdown of Hynes
- . 10% Contingency for New Construction
- . Today's Dollars

	AREA	\$/S.F.	TOTAL	
A. Renovation of Existing Facility B. New Construction within	355,800 s.f.	60.42	\$21,498,000	
B. New Construction within Property Line C. New Construction in	130,200 s.f.	118.38	15,413,000	
front of Commercial Block "C"	79,300 s.f.	157.10	12,458,000	
Roof of Hynes E. Demolition and New Con-	56,400 s.f.	249.86	14,092,000	
struction in Commercial Block "C" and West Court	79,800 s.f.	157.52	12,570,000	
Total Base Construction Cost	in Today's Doll	ars:	\$76,031,000	
16 Month Escalation at 10% pe			10,112,000	
TOTAL Base Construction (Star	rt November 1983):	\$ 86,143,000	
Options for Alternate Forms	of Construction:			
Phasing Premium (to keep during a 39 month constru		ration	\$ 6,970,000	
Premium(Min. 5%)Using Con	nstruction Manag	ement:	4,656,000	
Total Building Construction	with Options:		\$ 97,769,000	
FF&E(Furniture, Fixtures & Ed	quipment) and In	flation:	\$ 4,752,000+	
Total Construction Cost with	Options and FF&	E:	\$102,521,000	
DEVELOPMENT COSTS:				
Architect/Engineering Fees Supplementary Services Investigations, Studies, Misc Accounting, Insurance, Legal 1 Performance Bond			\$ 7,000,000 1,000,000 1,000,000	
Testing Labs Financial Fees			300,000 2,500,000*	
Total Development Costs;			\$ 13,300,000	
Total Project Cost:			\$121,321,000	



HYNES AUDITORIUM EXPANSION CONVENTION CENTER COST COMPARISON (Figures Provided By Perez Associates)

FACILITY	COST	DATE	ESCALATED TO SEPT., 1982	GROSS SQ. FT.	COST/SQ.FT. WHERE CONSTRUCTED	COST/SQ.FT. ADJUSTED TO BOSTON
Baltimore	\$ 50,000,000	1976	\$75,600,000	385,000	\$196.36	\$225.81
San Francisco	99,000,000	1978	157,500,000	650,000	242.31	210.81
Anaheim I	8,000,000	1974	17,900,000	135,000	132.59	125.96
Anaheim II	18,000,000	1981	18,900,000	150,000	126.00	119.70
New York	220,000,000	1981	231,000,000	1,750,000	132.00	120.12
Dallas (Add'n)	31,000,000	1982	32,600,000	300,000	108.67	119.54
Hynes			76,031,000	701,500	108.38	108.38
Washington	67,000,000	1980	77,700,000	800,000	97.13	104.90
New Orleans	69,000,000	1981	72,500,000	820,000	88.41	106.09
Atlanta I	32,000,000	1974	60,200,000	720,000	83.61	100.33
Atlanta II	74,000,000	1981	77,700,000	1,100,000	70.64	84.77
Las Vegas (Add'n)	10,000,000	1981	10,500,000	130,000	80.77	84.00

HYNES AUDITORIUM EXPANSION:

= \$60.42/sq. ft. = 157.75/sq. ft.	\$108.00/sq. ft.
₩	₩
355,800 sq. ft. 345,700 sq. ft.	701,500 sq. ft.
\$21,498,000 54,533,000	\$76,031,000
Renovation New Construction	



CONTENTS

INTRODUCTION	Р.	1
MAIN SUMMARY	Р.	2
RENOVATION OF EXISTING FACILITY	P.	3 - 19
NEW CONSTRUCTION WITHIN PROPERTY LINE	Р.	20 - 38
NEW CONSTRUCTION IN FRONT OF COMMERCIAL BLOCK C	Ρ.	39 - 54
NEW CONSTRUCTION ON ROOF OF HYNES	Р.	55 - 69
DEMOLITION AND NEW CONSTRUCTION IN COMMERCIAL BLOCK C AND WEST COURT	Р.	70 - 85
GENERAL CONDITIONS AND PROFIT	P.	86 - 89
ESCALATION	Р.	90
PHASING PREMIUM	Ρ.	91 - 96
FURNITURE, FIXTURES AND EQUIPMENT	P.	97



HYNES AUDITORIUM EXPANSION BOSTON, MASSACHUSETTS

Project:

TNTRODUCTIC

This estimate has been prepared by Hanscomb Associates Inc from the preliminary drawings (seven sheets) dated October, 1982 together with reports from the structural, mechanical, electrical, programming, soils and code consultants.

allowances for those sections of the work which are as yet undefined. The estimate assumes The estimate is based upon approximate quantities measured from the drawings together with the following:

- The project will be competitively bid.
- Construction period of twenty-seven months.
- A single contract will be let for the entire works.

Items not included are:

- Escalation (the estimate reflects prices current at February 1983).
- Phasing costs
- Consultants fees
- Administrative costs.

In addition to the estimated construction cost, February 1983 (see Main Summary P.) escalation has been calculated based upon a construction period of twenty-seven months commencing November 1, 1983 and using a rate of 10% per annum.

The estimated premium for constructing the project in three phases lasting a total of thirty-nine months has also been calculated.



\$21,498,000 15,413,000 12,458,000 14,092,000

> В. ن Ω. ഥ.

12,570,000 \$76,031,000 10,112,000 \$86,143,000 4,656,000

6,970,000

4,752,000

\$97,769,000

\$102,521,000

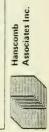


Cost Analysis

Renovation of Existing Facility



	Project: RENOVATION OF EXI	EXISTING FACILITIES		Cost Plan/Cost Check No: Date:		Sheet No: 3
	Uniformat Element	Amount \$	Total Cost	Rate \$/SF Floor Area	%	Comments
	1.01 + Foundations	できる	100,000	0.28		
	011 - Standard foundations				S-425-76	
	012 - Special foundation conditions				To apply	
	MOVE WHILE LIEUTED & COLUMN COLUMN		1			
	021 – Slab on grade					
	022 - Basement excavation					
	023 Basement walls					
	, 1988年,		702,000	1.97		
	031 – Floor construction	000 677	か ちょうか		T457	
	032 - Roof construction	047,000				
	033 — Stair construction	60,000			142X	
	A DAY HEXTOLIGINED TO THE TOTAL TO THE TOTAL TOT	The State of	1,018,000	2.86		
	041 — Exterior walls)	1 018 000	· · · · · · · · · · · · · · · · · · ·		1000	
	042 - Exterior doors and windows)	200,010,1	一年		TAKE	
	05 - Roofing	7. 一个是一个	952,000	2.68		
	8. 00 Interior construction 2712 - Case as		3,301,000	9.28		
	061 — Partitions	1,038,000				
	062 — Interior finishes	1,745,000				
	063 — Specialties	518,000				
	O7 — Conveying systems !		310,000	0.87		
	108 H Mechanical		6,117,000	17.19		
	081 — Plumbing	822,000			ent to	
	082 - HVAC	4,548,000				
	083 - Fire protection	747,000				
?	084 - Special mechanical systems		Sept. Sept. Wall			
	Hanscomb Associates Inc.			Elemental Cost Summary Part 1 of 2		

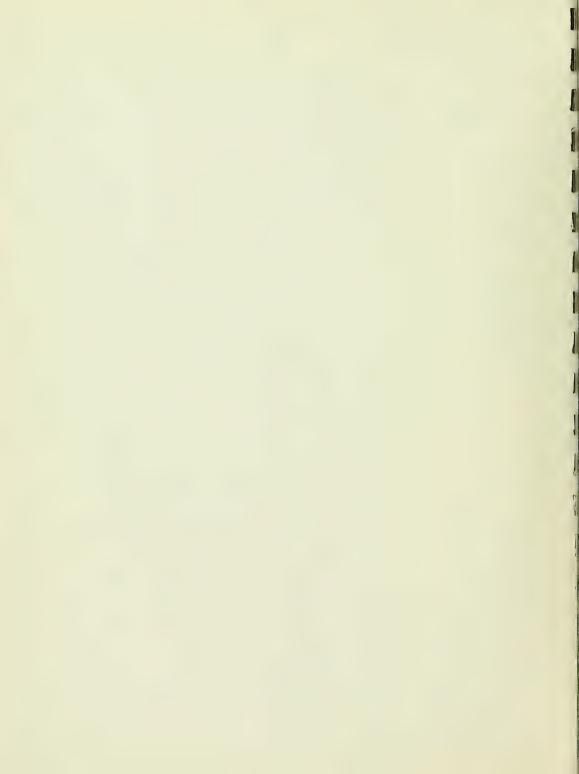




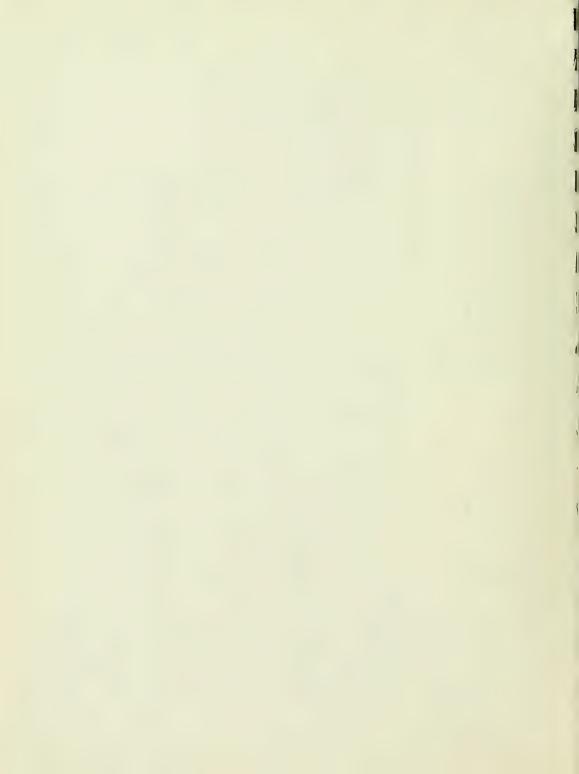
	Project: RENOVATION OF EXIST	EXISTING FACILITIES		Cost Plan/Cost Check No: Date:	lo:	Sheet No: 4
	Uniformat Element	Amount \$	Total Cost	Rate \$/SF Floor Area	%	Comments
	097 Electrical (1997) 1997 (1997) 1997 (1997) 1997 (1997) 1997 (1997) 1997 (1997) 1997 (1997) 1997 (1997)	3,470,000	3,470,000	9.75		
	093 — Special electrical systems)		1,977,000	5.56		
	Net Building Cost		17,947,000	50.44		
	111 — Fixed and movable equipment					
	13— Special construction 12— Site work 121— Site preparation	767 000	747,000	2.10		
	122 – Site improvements 123 – Site utilities					
	124 – Off-site work					
	131 — Contingencies 131 — Design 15% 132 — Escalation 133 — Construction	2,804,000	2,804,000	7.88		
	TOTAL ESTIMATED CONSTRUCTION COST, FEBRUARY 1983	v.	21,498,000	\$60.42		GROSS FLOOR AREA 355,800 SF
0-3	TO THE PROPERTY OF					
	Hanscomb Associates Inc.			Elemental Cost Summary Part 2 of 2		



		5	CONSTRUCTION COST ESTIMATE	ION COS	r ESTIN	IATE		Sheet No.	No. 5		
PR	PROJECT: HYNES AUDITORIUM EXPANSION		1	PR	JECT 1	PROJECT LOCATION:	1	BOSTON, MA.		1	
AR	ARCHITECT: KALLMANN, MCKINNELL, WOOD		1	TYI	E OF C	TYPE OF CONSTRUCTION: NEW:	TION:	NEW:	X RENOV:	x : vo	ALT:
ES	ESTINATED BY: HANSCOMB ASSOCIATES INC	NC		GR	SS ARE	GROSS AREA S.F.	701,500		Pr.	Budget X Prelim	
DA	DATE: FEBRUARY 18, 1983			NO	VOLUME C.F.	124			FI	Final	
INI	L									TOTAL COST	COST
S 0	02 SUBSTRUCTURE	UNIT	QUANTITY	UNIT COST	ST						
-	A. Renovation of Existing Facilities										
	Foundation modifications										
	(Transfer beams) for 20										
	supporting new auditorium										
1	floor		Allow							0,001	000
	The control of										
	TOTAL									100,000	00



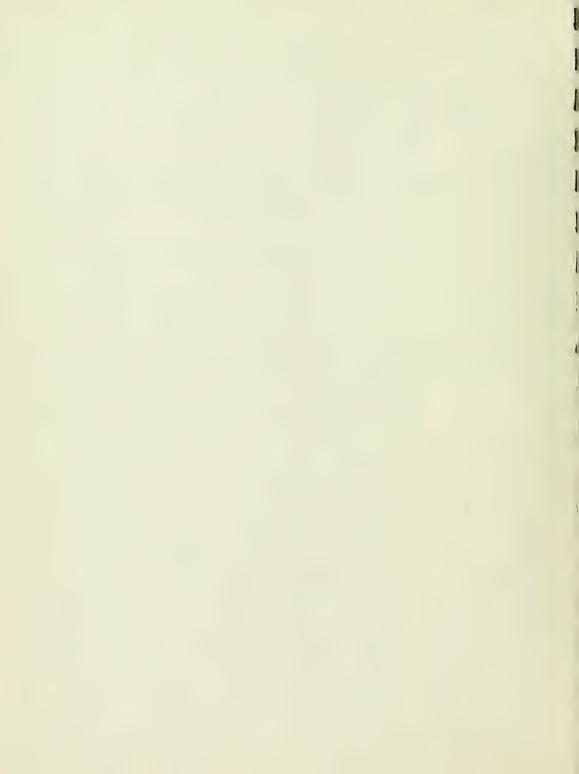
		8	NSTRUCI	CONSTRUCTION COST ESTIMATE	ESTIMATE	Sheet No.	No. 6.	
P	PROJECT: HYNES AUDITORIUM EXPANSION		1	PROJ	PROJECT LOCATION:	BOSTON, MA.	ſŊ.	1
Y	~ 1			TYPE	TYPE OF CONSTRUCTION:	rion: New:	×	1
m	ESTIMATED BY: HANSCOMB ASSOCIATES INC	, NC		GROS	S.F.	701,500	Budget Prelim	get X
D	DATE: FEBRUARY 18, 1983		a	NOTO	VOLUME C.F.		Final	a1
LINE								TOTAL COST
o Z		TINU	QUANTITY	UNIT COST				
1	A. Renovation of Existing Facilities							
	031/032 Floor/Roof							
	Structural Steel floor							
		Ē	1000					
1	(EI: 04 -IO)	J.C.	73,104	11 20				346,290
	Structural Steel floor					·		
	o mechan	ŗ	1	T				
	F100r (£1 5410"	N.	2.700	06 11				68.544
	Metal Deck concrete							
		SF	34,944	4 00				139.776
	Steel Framing and							
	decking over orchestra	C I	002 6	00 71				7.5.000
	1		700/17	77				47.300
	Framing @ stair shafts (2 EA. E1. 54'-10")		Allow					30.000
	Spray tireproofing to Structural Steel		Allow					10.000
1								
	TOTAL							641,510



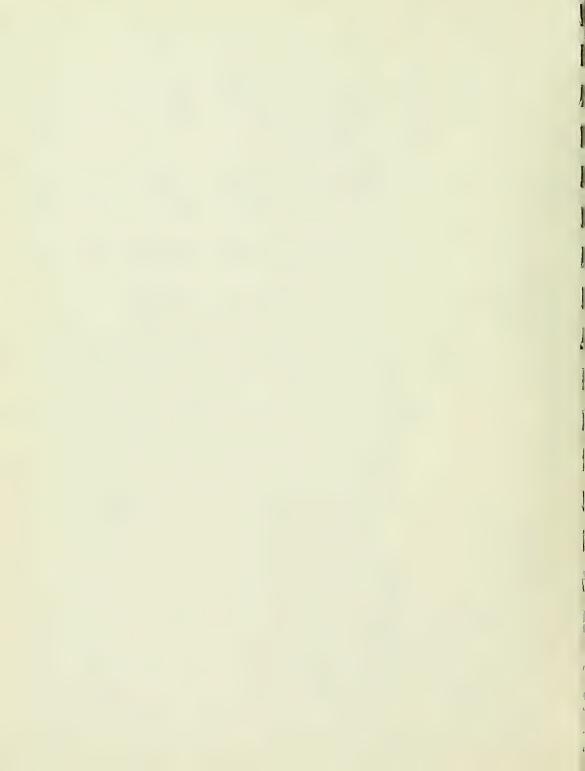
		ວ	NSTRUCI	CONSTRUCTION COST ESTIMATE	ESTIMATE	Shee	Sheet No. 7	
P.J	PROJECT: HYNES AUDITORIUM EXPANSION		1	PROJ	PROJECT LOCATION:	BO	MA.	
A	ARCHITECT: KALLMANN, McKINNELL, WOOD			TYPE	TYPE OF CONSTRUCTION:	TION: NEW:	Y: X RENOV:	V: X ALT:
щ	ESTIMATED BY: HANSCOMB ASSOCIATES INC	NC		GROS	GROSS AREA S.F.	701,500	Bud	Budget X Prelin
D	DATE: FEBRUARY 18, 1983			NOT	VOLUME C.F.		Final	a1
LINE	TEM DESCRIPTION							TOTAL COST
2	03 SUPERSTRUCTI	UNIT	QUANTITY	PNIT COST				
11	A. Kenovation of Existing Facilities							
	033 - Stair Construction							
	Stair Construction		ALLOW					000 09
1.								
1.1								
				_				
	. TOTAL			1		-		000,09

.

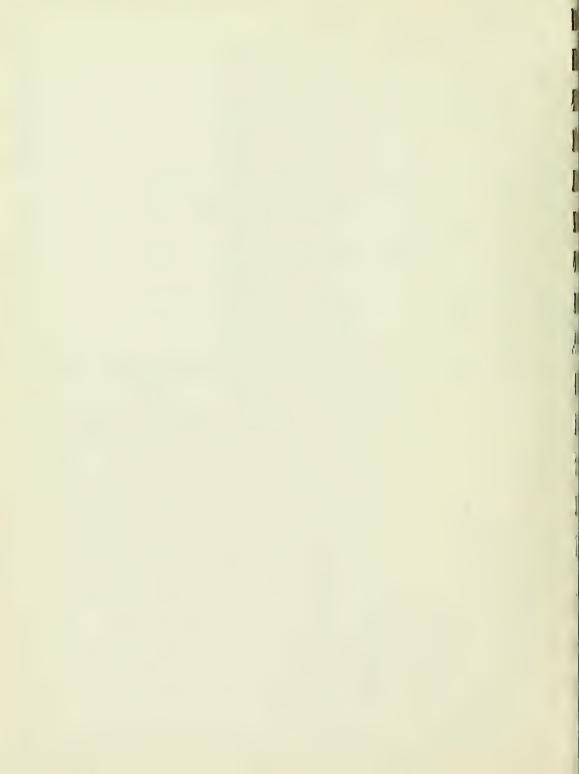
.



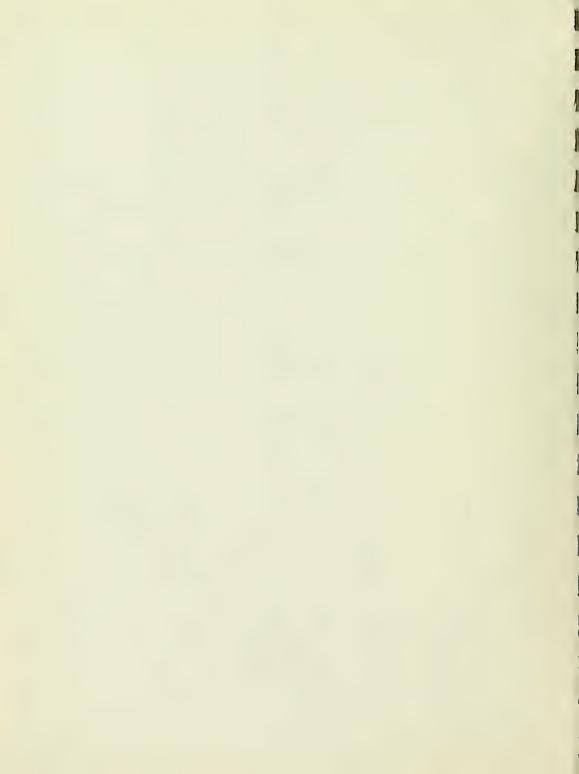
))	NSTRUCT	ION COST	CONSTRUCTION COST ESTIMATE	Shee	Sheet No. 8	
P	PROJECT: HYNES AUDITORIUM EXPANSION		1	PRO.	PROJECT LOCATION:	I: BOSTON, MA.	MA.	
A	ARCHITECT: KALLMANN, MCKINNELL, WOOD	6		TYP	TYPE OF CONSTRUCTION:	TION: NEW:	W: X RENOV:	V: X ALT:
щ	ESTIMATED BY: HANSCOMB ASSOCIATES INC	INC		GRO	GROSS AREA S.F.	701,500	Budget Prelim	set X
D.	DATE: FEBRUARY 18, 1983			TOA	VOLUME C.F.		Final	11
LINE	FOID DECEMBER							TOTAL COST
0	04 EXTERIOR CLOSURE	UNIT	QUANTITY	UNIT COST	E.			
-	A. Renovation of Existing Facilities							
	1 1		•					
	~							
	facades of existing							
Ų	building; masonry	SF	67.840	15 00				1,017,600
1								
1								
	S appropries							
	TOTAL							1,017,600
								1



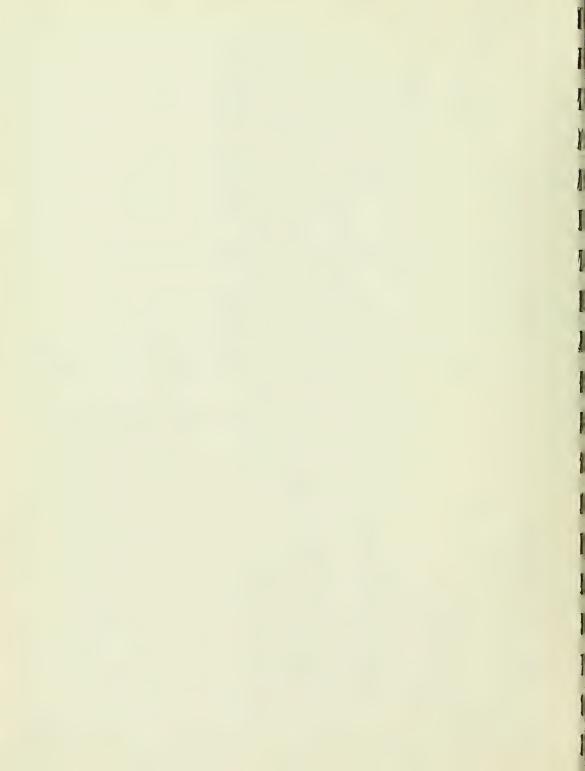
		Ú	NSTRIPTION	TOOL	FCTTMATE	250	No of	•
PI	PROJECT: HYNES AUDITORIUM EXPANSION	3		PROJ	PROJECT LOCATION:	BO		
AI	ARCHITECT: KALLMANN, MCKINNELL, WOOD			TYPE	TYPE OF CONSTRUCTION:	TION: NEW:	W: X RENOV:	V: X ALT:
E D	ESTIMATED BY: HANSCOMB ASSOCIATES INC DATE: FEBRUARY 18, 1983	NC I		GROS	GROSS AREA S.F. 701,500 VOLUME C.F.	701,500	Budget Prelin Final	Budget X Prelim Final
LINE	TEM DESCRIPTION							TOTAL COST
ğ	O5 ROOFING A. Renovation of Facilities	UNIT	QUANTITY	UNIT COST				
	IRMA Roofing System	SF	136,000	7 00				952,000
	Vidence C							
1								
	. TOTAL							952,000



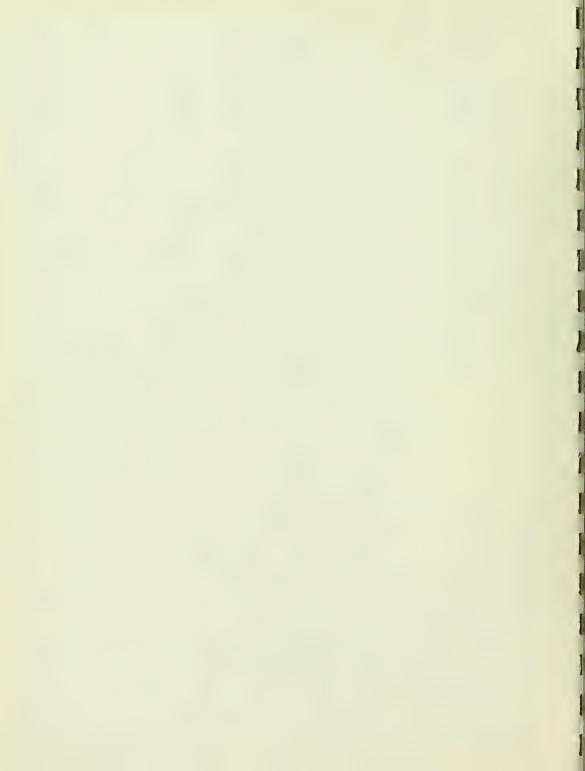
		S	NSTRUCI	TON COST	CONSTRUCTION COST ESTIMATE	Sheet	Sheet No. 10	
PR	PROJECT: HYNES AUDITORIUM EXPANSION		1	PRO.	PROJECT LOCATION:	BOSTON, MA.	MA.	1
AR	ARCHITECT: KALLMANN, McKINNELL, WOOD			TYP	TYPE OF CONSTRUCTION:	TION: NEW:	. X RENOV:	V: X ALT:
ES	ESTIMATED BY: HANSCOMB ASSOCIATES INC	INC	٠	GRO	GROSS AREA S.F. 701,500	701,500	Budget	×
DA	DATE: FEBRUARY 18, 1983			VOL	VOLUME C.F.		Final	1
LINE	TITEM DESCRIPTION							TOTAL COST
NO.	. 06 INTERIOR CON	UNIT	QUANTITY	PNIT COST				
11	A. Kenovation of Existing Facilities							
	Of Partitions							
	Interior partitions and							
	doors to:							
	Meeting space	SF	170 000	- 2	00			956 300
-	Support space	SF	139,900	3	50			489,650
	Prefunction and							
	circulation space	SF	33,100	7	00			231,700
		ŀ						
	· · · · · · · · · · · · · · · · · · ·							
•								
	. TOTAL			ı				1,037,550



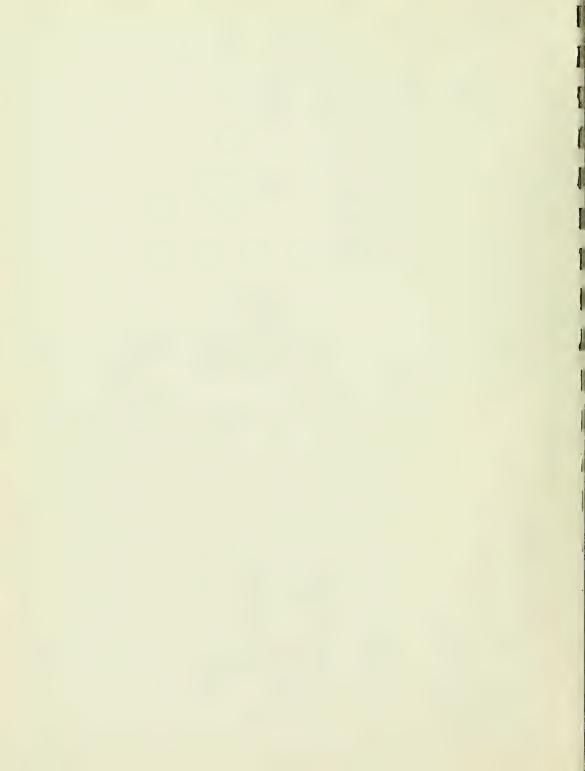
			7117	THE PART OF BOOTON	50	11010				
		ວ	CONSTRUCTION COST ESTIMATE	ion cos	TE	STIMATE		Shee	Sheet No. 11	
Į,	PROJECT: HYNES AUDITORIUM EXPANSION		1	PR	.0JE(PROJECT LOCATION:	BOSTON, MA.	N, M	۸.	
AB	ARCHITECT: KALLMANN, MCKINNELL, WOOD			TY	PB (TYPE OF CONSTRUCTION:		WEW:	X RENOV:	V: X ALT:
ES	ESTIMATED BY: HANSCOMB ASSOCIATES INC	NC		GR	0.55	GROSS AREA S.F. 701,500	701,500		Budget Prelim	Set X
מ	DATE: FEBRUARY 18, 1983			00	LUMI	VOLUME C.F.			Final	a1
LINE	Ŀ									TOTAL COST
0	06 INTERIOR CO	TINO	QUANTITY	UNIT COST	ST					
	A. Renovation of Existing Facilities									
								T		
	062 Interior Finishes									
	Interior Finishes to:				1			1		
	Meeting space	SF	12,000		90			1		96,000
	Exhibition space	N CIT	1 20 000	7:	000			1		427.000
1	Support space	N.	139,900	4	3			T		009,866
_	circulation space	SF	33.100	20	00					662.000
										200
								1		
					1			1		
								\dagger		
					T			T		
					1			+		
	Nate				1			1		
	Markett				+			1		
					T					
•										
	TOTAL									1,744,600



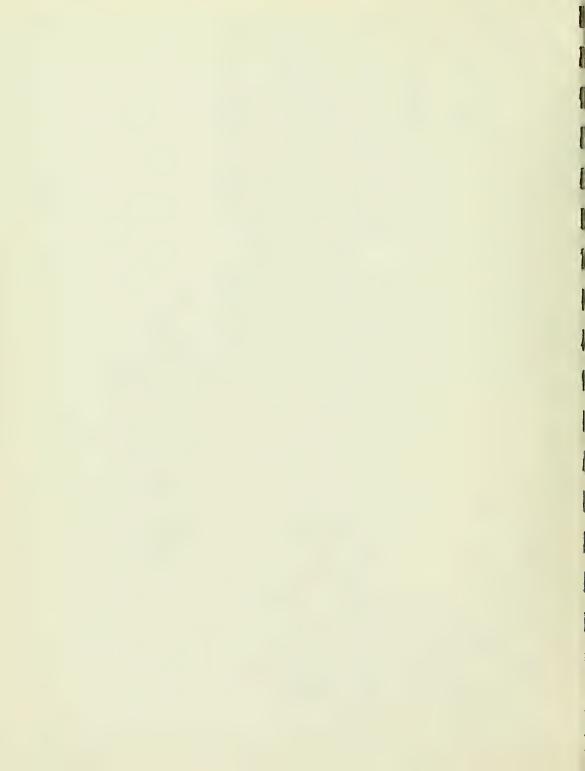
		ö	ONSTRUCT	CONSTRUCTION COST ESTIMATE	ESTIMATE	Shee	Sheet 12 .	
PI	PROJECT: HYNES AUDITORIUM EXPANSION		1	PROJ	PROJECT LOCATION:	4: BOSTON, MA.	MA.	
A	× 1			TYPE	TYPE OF CONSTRUCTION: NEW:	TION: WE	×	
E.C.	ESTIMATED BY: HANSCOMB ASSOCIATES INC DATE: FEBRUARY 18, 1983	S I		GROS	GROSS ARBA S.F. 701,500 VOLUME C.F.	701,500	# E E E	Budget X Prelin Final
LINE	Ŀ							TOTAL COST
.0 .0	:	UNIT	QUANTITY	UNIT COST				
	A. Renovation of Existing Facilities							
			•					
	063 Specialties Specialities to:							
	Meeting space	SF	12,000	2 00				24 000
	Exhibition space	SF	170,800					256,200
1	Support space	or	139,900	0 /2				104,925
	circulation space	SF	33,100	4 00				132.400
		1						
	, 1006							
	TOTAL							517,525



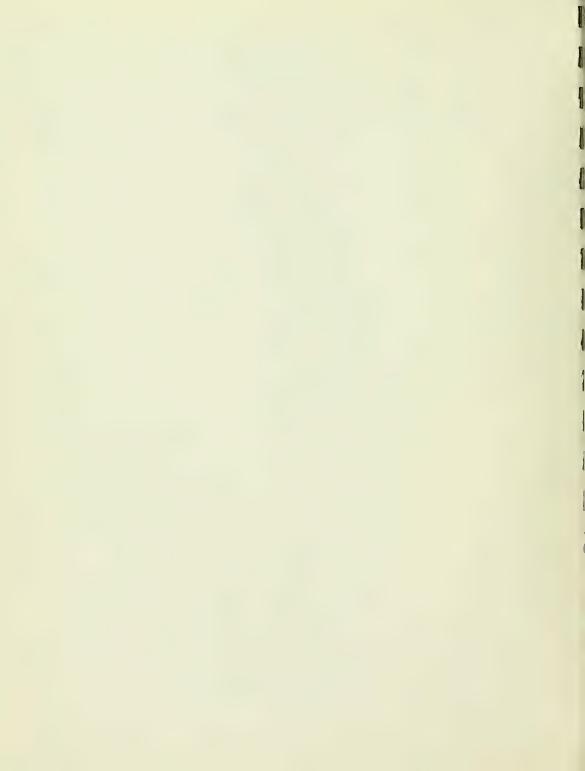
PI	PROJECT: INVIES AUDITORIUM EXPANSION	ö	ONSTRUCT	CONSTRUCTION COST ESTIMATE PROJECT LOCA	OST ESTIMATE PROJECT LOCATION:	08	Sheet No. 13	t
AF	ARCHITECT: KALLMANN, MCKINNELL, WOOD		1 1	TYPE	TYPE OF CONSTRUCTION:	TION: NEW:	W: X RENOV:	V: X ALT:
ES DA	ESTIMATED BY: HANSCOMB ASSOCIATES INC DATE: FEBRUARY 18, 1983	S I		GROS	GROSS AREA S.F. 701,500 VOLUME C.F.	701,500	Budget Prelim Final	
LINE	MOITGIGG SEG METI							TOTAL COST
NO.	O7 CONVEYING ST	TINU	QUANTITY	UNIT COST				
	A. Renovation of Existing Facilities							
	1500 11		•					
	capacity ic service							
	stop	EA	1					90,000
1	4.000 lb. capacity							
	ed							
	_	EA	1					80,000
	Overhaul existing							
	ors (5		Allow					100,000
	Overhaul existing elevators (2 EA)		Allow					000 07
	A Maria							
	, TOTAL				٠			310,000



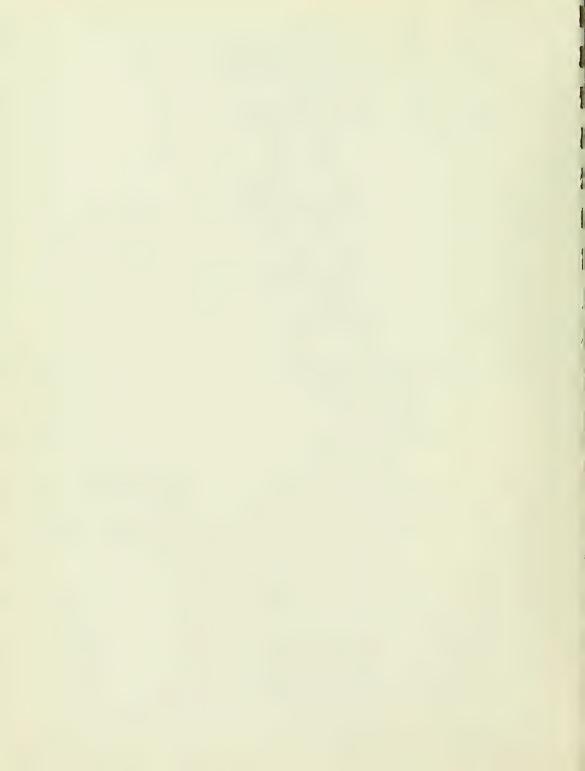
		8	CONSTRUCTION COST ESTIMATE	ION COS	r EST	IMATE		She	Sheet No. 14		
PRO	PROJECT: HYNES AUDITORIUM EXPANSION		1	PR	JJECT	PROJECT LOCATION:	I	BOSTON, MA.	. 41		
ARC	ARCHITECT: KALLMANN, McKINNELL, WOOD		1	TY	PE OF	TYPE OF CONSTRUCTION:		NEW:	X RENOV:	1	X ALT:
EST	ESTIMATED BY: HANSCOMB ASSOCIATES INC	J C		GR	A SSC	GROSS AREA S.F.	701,500		Buc	Budget	×
DAT	DATE: FEBRUARY 18 purio83			ΛΟΛ	VOLUME C.F.	C.F.			Fi	Final	
LINE	ITEM DESCRIPTION									TOTAL	TOTAL COST
Ö.		TINO	QUANTITY	UNIT COST	ST						
	A, Renovation of Existing Facility										
	MECHANICAL SUMMARY										
	Plumbing				-					822	2,250
	Fire Protection									746.	
								1			
	Transfer										
-											
					-						
	, TOTAL MEG	MECHANICAL	AL							6,11	6,117,425



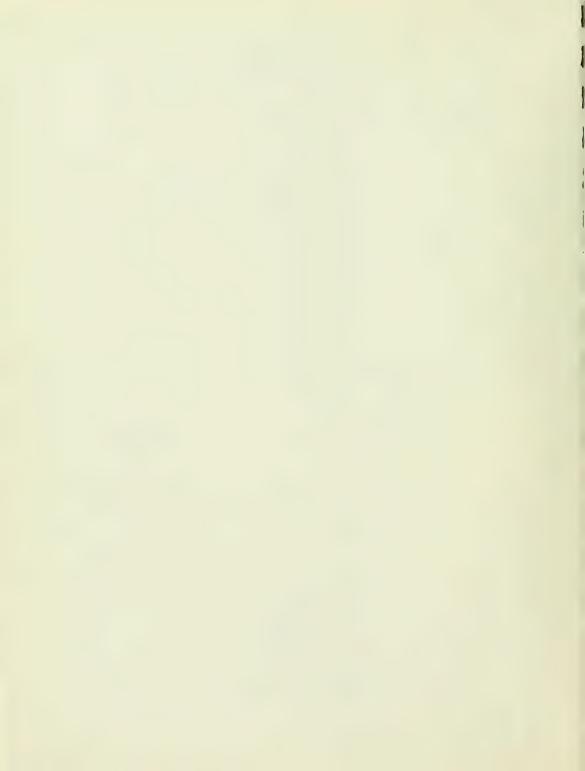
		ŏ	NSTRUCI	CONSTRUCTION COST ESTIMATE	ESTIMATE		Sheet No. 15	2
PR	PROJECT: HYNES AUDITORIUM EXPANSION		1	PROC	PROJECT LOCATION:	1	BOSTON, MA.	
AR	ARCHITECT: KALLMANN, McKINNELL, WOOD		1	TYPI	TYPE OF CONSTRUCTION:		NEW: X REN	RENOV: X ALT:
ES	ESTIMATED BY: HANSCOMB ASSOCIATES INC	INC		GROS	GROSS AREA S.F.	701,500	Br. Pr.	Budget X Prelin
DA	DATE: FEBRUARY 18, 18, 1983			NOLL	VOLUME C.F.		E	Final
LINE	ITEM DESCRIPTION							TOTAL COST
Ö.		TINO	QUANTITY	UNIT COST				
	A. Renovation of Existing			·				
	(21100.							
	Plumbing							
	Replace Fixtures	EA	200	500				100,000
	Piping - Replace or new	LS						200,000
	1	-	L	25,000				25,000
	Sewer Pumps Duplex	EA	-	25,000				25,000
	Air Compressor	LS						50,000
	1.50	LS						50,000
	Kitchen Pining &	27						
		LS						100,000
	New H.W. Heater	EA	1	15,000				15,000
								-1
	Overhead & Froiit 15%							4
								-
	· Its Andrew							
								-
	TOTAL PL	PLUMBING		1		•		822,250
	THE PROPERTY OF THE SOURCE STATE STREET, SALES OF THE SOURCE STATE							



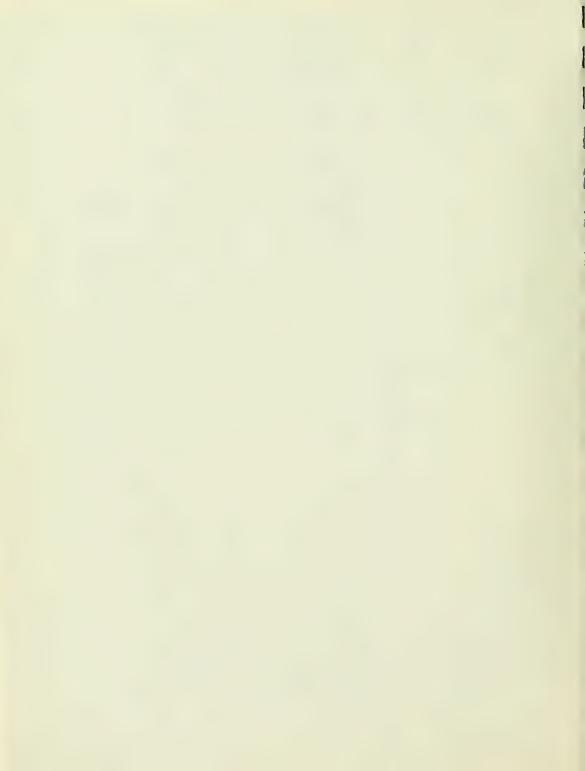
		ö	NSTRUCT	ION COST	CONSTRUCTION COST ESTIMATE	Shee	Sheet No. 16	
PI	PROJECT: HYNES AUDITORIUM EXPANSION		1	PRO	PROJECT LOCATION:	BOSTON, MA.	Α.	
A	ARCHITECT: KALLMANN, MCKINNELL, WOOD		1	TYP	TYPE OF CONSTRUCTION:	rion: New:	×	/: X ALT:
ES	ESTIMATED BY: HANSCOMB ASSOCIATES INC	NC		GRO	GROSS AREA S.F.	701,500	Budget	et X
D/	DATE: FEBRUARY 18, 1983			TOA	VOLUME C.F.		Final	1
LINE	MOLEGIO CORON MATE							TOTAL COST
0		TINO	QUANTITY	UNIT COST	ı			
	A. Renovation of Existing Facility							
			•					
	Fire Protection	Į.	002 6	175				472 500
	Standpipe	LS						100,000
	Fire Hose Valves &	21						25,000
	Siamese Connection	27						2,000
	Fire Pump	EA	П	50,000				50,000
	Subtotal							649,500
	Overhead & Profit 15%							97,425
								-
	- Advent							
	TOTAL FIRE PROTECTION	E PRO	TECTION					746,925



	1	V: X ALT	Set X	11	TOTAL COST					20,000	10,000	5,000	25,000	2,500	2,500	250,000	000,67	250,000		1,600,000	100,000	50,000	500,000	35,000	3 055 000	593,250			4,548,250
Sheet No. 17	MA.	W: X RENOV:	Budget Prelim	Final																									
S	BOSTON, MA.	TION: NEW:	701,500																										
STIMATE	PROJECT LOCATION:	TYPE OF CONSTRUCTION:	GROSS AREA S.F.	VOLUME C.F.	-																								
CONSTRUCTION COST ESTIMATE	PROJI	TYPE	GROSS	VOLUM		UNIT COST				50,000																			
ONSTRUCT	1	1				QUANTITY				-1																			
ບັ			NC I			TINO				EA	LS	LS	LS	LS	LS	IS	LS	LS	CT	LS	LS	LS	I.S	LS					HVAC
	PROJECT: HYNES AUDITORIUM EXPANSION	ARCHITECT: KALLMANN, McKINNELL, WOOD	ESTIMATED BY: HANSCOMB ASSOCIATES INC	DATE: FEBRUARY 18 WWW 1983	MOITGIGG 330 Math	ובש הבס	A, Renovation of Existing	Taciticy	HVAC	New Steam PRS	Condensate Pump	Steam Specialties	Heat Exchangers	Air Seperators	Expansion Tanks	+1	Terminal Equipment	A.H. Equipment	Air Distribution Sheet	Metal with all acces	ion	101	Auto Temp. Control	Air & Water Balance	0:1	Overhead & Profit 15%	Company		TOTAL
	d	X	m	D,	LINE	0																						1	



OV: X ALT:	idget X	nal	TOTAL COST				1,300,000	70,000	820,000	150,000	165,000		12,000	75,000	90,000	000,00	000 6	3,000	200.000		5,000							3,470,000
×	H H	H																										
TION:	701,500																		-									
OF CONSTRUC	AREA S.F.	в с. в.	-																									
TYPE	GROSS	VOLUM		UNIT COST																								
1 1				QUANTITY																								
Q	INC			TINO																								
ARCHITECT: KALLMANN, MCKINNELL, WOOI		DATE: FEBRUARY 184011983			A, Renovation of Existing		st.	EM. Generator	Power	Lighting	Filone Fire Alarm	Ma		Clock System	Sound Paging System	Wireless Paging	Security Assistance	System	Intrusion Alarm & Video						4 Antaon, 1 Antaon, 1 Antaon and antaon antaon and antaon antaon and antaon antaon and antaon			TOTAL
	RENOV: X	TYPE OF CONSTRUCTION: MEW: X RENOV: X Budget X GROSS AREA S.F. 701,500 Prelin	TYPE OF CONSTRUCTION: NEW: X GROSS AREA S.F. 701,500 Prelim VOLUME C.F.	CHITECT: KALLMANN, MCKINNELL, WOOD TYPE OF CONSTRUCTION: MEW: X GROSS AREA S.F. 701,500 Prelin Final TOTAL C	CKINNELL, WOOD TYPE OF CONSTRUCTION: NEW: X Budget X GROSS AREA S.F. 701,500 Prelin VOLUME C.F. TION UNIT QUANTITY UNIT COST TYPE OF CONSTRUCTION: NEW: X Budget X Prelin Final TOTAL C	CHITECT: KALLMANN, MCKINNELL, WOOD TYPE OF CONSTRUCTION: NEW: X RENOV: X TIMATED BY: HANSCOMB ASSOCIATES INC TE: FEBRUARY 184781983 TE: FEBRUARY 184781983 TE: FEBRUARY 184781983 A. Renovation of Existing A. Renovation of Exis	CHITECT: KALLMANN, MCKINNELL, WOOD TYPE OF CONSTRUCTION: NEW: X A RENOV: X A GROSS AREA BY: HANSCOMB ASSOCIATES INC TE: FEBRUARY: 184781983 TE: FEBRUARY: 184781983 TE: FEBRUARY: 184781983 TOTAL COST A, Renovation of Existing A, Renovation of Existing A, Renovation of Existing Anin Elec Service &	CHITECT: KALLMANN, MCKINNELL, WOOD TYPE OF CONSTRUCTION: NEW: X RENOV: X TIMATED BY: HANSCOMB ASSOCIATES INC GROSS AREA S.F. 701,500 Budget X TE: FEBRUARY: 18, 120,100 UNIT GUANTITY QUANTITY QUANTITY QUANTITY QUANTITY VOLUME C.F. A. REDOVATION OF EXISTING A. REDOVATION OF EXISTING A. REACCILITIES Main Elec Service & Main Elec Service & Dist. 1,3	CHITECT: KALLMANN, MCKINNELL, WOOD	CHITECT: KALLMANN, MCKINNELL, WOOD	CHITECT: KALLMANN, MCKINNELL, WOOD	TYPE OF CONSTRUCTION: NEW: X RENOV: X TINATED BY: HANSCOMB ASSOCIATES INC GROSS AREA S.F. 701,500 Budget X GROSS AREA S.F. 701,500 Budget X Frelin Final VOLUME C.F.	TYPE OF CONSTRUCTION: NEW: X A BUNDER: NEW: NEW: X A BUNDER: NEW: NEW: NEW: X A BUNDER: NEW: NEW: NEW: NEW: NEW: NEW: NEW: NEW	CHITECT: KALLMANN, MCKINNELL, WOOD	TYPE OF CONSTRUCTION: NEW: X RENOV: X TYPE OF CONSTRUCTION: NEW: X RENOV: X TIMATED BY: HANSCOME ASSOCIATES INC GROSS AREA S.F. 701,500 Budget X Budget X Prelim	TYPE OF CONSTRUCTION: NEW: X REMOV: X TIMATED BY: HANSOMB ASSOCIATES INC GROSS AREA S.F. 701,500 Budget X Budget X Prelin Final TEM DESCRIPTION	TYPE OF CONSTRUCTION: NEW: X RENOV: X TYPE OF CONSTRUCTION: NEW: X RENOV: X ENDOW:	TYPE OF CONSTRUCTION: NEW: X RENOY: X TIMATED BY: HANSCOMB ASSOCIATES INC GROSS AREA S.F. 701,500 Budget X Fable	TYPE OF CONSTRUCTION: NEW: X RENOV: X TIMATED BY: HANSCOME ASSOCIATES INC GROSS AREA S.F. 701,500 Budget X Enail TE: FEBRUARY 16 main Elec Service & Dist. Property Construction of Existing Family Elec Service & Dist. Power Lighting Phone Fire Alarm Radio & TV Master Antenna Phone Fire Alarm Radio & TV Master Antenna Clock System Sound Paging System Sound Paging System Sound Paging System System System Sound Paging System Sound System Service & System System System System Sound Paging System Sound Paging System Sound System Sound Paging System System System Sound Paging System Syste	TYPE OF CONSTRUCTION: NEW: X RENOY: X TIMATED: BY: HANSCOMB ASSOCIATES INC GROSS AREA S.F. 701,500 Budget Examinated by: HANSCOMB ASSOCIATES INC GROSS AREA S.F. 701,500 Breater Examination of Existing Frank (North Hans) TE: FEBRUARY 18 manual of Existing Frank (North Hans) TEM DESCRIPTION OF Existing Frank (North Hans) TOTAL TOTA	TYPE OF CONSTRUCTION: WEW: X RENOY: X TIMATED BY: HAMSCOME ASSOCIATES INC GROSS AREA S.F. 701,500 Budget Englished By: HAMSCOME ASSOCIATES INC GROSS AREA S.F. 701,500 Frein Final TE: FEBRUARY: 18,711,933	TYPE OF CONSTRUCTION: NEW: X RENOV: X TIMATED: BY HANSCOME ASSOCIATES INC GROSS AREA S.F. 701,500 Presin Final	THATECT: KALLMANN, MCKINNELL, WOOD	TYPE OF CONSTRUCTION: MEW: X RENOV: XTIMATED BY: IANNSONM ASSOCIATES INC GROSS AREA S.F. 701,500 Prelin Prelinies Faisting Power Prelin Prelinies Prelin Price Alarm Radio & TV Master Price Alarm Radio & TV Master Preling Phone Price Alarm Preling Phone Price Phone	TYPE OF CONSTRUCTION: MEW: X RENOV: X TIMATED BY: MANSCOMB ASSOCIATES INC GROSS AREA S.F. 701,500 Prelin Final	TYPE OF CONSTRUCTION: NEW: X RENOV: X RENOV: X RENOV: X RENOW: X RENOW: X RENOW: X RENOW: X RENOW: X RENOW: X RENOWED BY: HANSOOMB ASSOCIATES INC CROSS AREA S.F. 701,500 Prelin Final Construction of Existing Readilities Main Elec Service & District Construction of Existing Phone Phone Final Construction of Existing Phone Final Construction District Construction Construction Alarm & Video System Sound Paging System Steerior Door Intercom Exertior Door Intercom Exertior Door Intercom Exertior Door Intercom Exertior Door Intercom Exertion Construction Alarm & Video System Exertior Door Intercom Exertion Door Intercom Exertic Door Interc	THATED BY: WANSONB ASSOCIATES INC GROSS AREA S.F. 701,500 Freiln Preiln Preilne Preille Preilne Preilne Preilne Preilne Preilne Preilne Preilne Preil	THATED BY: MANSCOME ASSOCIATES INC GROSS AREA S.F. 701,500 Prelin Frial Frial



	1
ST ESTIMATE	PROJECT LOCATION:
SOO	P
CONSTRUCTION COST ESTIMATE	
·.	EXPANSION
	HYNES AUDITORIUM EXPANSION
	HYNES
	PROJECT: HY

Sheet No. 19.

BOSTON, MA.

## ASSOCIATES INC GROSS AREA S.F. 701,500 ### CROSS AREA S.F. 701,500 ##	RENOV: X ALT:	Budget X Prelin Final	TOTAL COST							88.800	776.64		41,550	8.100	264,600	206,200	20,000	68.000				
TYPE OF CONSTRUCT	NEW: X	701,500										Ì										
CHITECT: KALLMANN, MCKINNELL, WOOD TIMATED BY: HANSCOMB ASSOCIATES INC TE: FEBRUARY 18, 1983 ITEM DESCRIPTION 12 SITEWORK A. Renovation of Existing Remove balcony and Concrete structure at SF 11,100 Remove interior finishes Lower level El. 61'-6" Remove interior finishes Lower level Scond level Second level Second level Second level Remove roof covering	TYPE OF CONSTRUCT	GROSS AREA S.F. VOLUME C.F.		COST						800	300		050	100	200	200	0000	050				
CHITECT: KALLMANN, MCKINNELL, WOOD TINATED BY: HANSCOMB ASSOCIATES INC ITE: FEBRUARY 18, 1983 ITE: A DESCRIPTION 12 SITEWORK A. Renovation of Existing Facilities 121 Site Preparation Demolition Remove balcony and concrete structure at E1. Site Preparation Bemove balcony and concrete structure at E1. Site Preparation Remove balcony and concrete structure at E1. Site Preparation Remove balcony and concrete structure at E1. Site Preparation Remove concrete structure Second level Second level Remove roof covering Remove roof covering						•				11,100	16.648		83.100	8,100	132,300	103,100		136,000				
ARCHITECT: KALLMANN, MCKINNELL, WO ESTINATED BY: HANSCOMB ASSOCIATES DATE: FEBRUARY 18, 1983 NO. 12 SITEWORK A. Renovation of Existing Facilities 121 Site Preparation Demolition Remove balcony and concrete structure at El. Site Preparation Remove balcony and concrete structure at El. Site Preparation Remove balcony and Concrete structure at El. Site Preparation Remove exterior facade Remove exterior finish Lower level Street level Main level Scond level Remove escalators Remove roof covering	QO	INC		TINO						SF	SF	0.0		SF	SF	SF	EA	SF			-	
	ARCHITECT: KALLMANN, MCKINNELL, WOO	ESTINATED BY: HANSCOMB ASSOCIATES DATE: FEBRUARY 18, 1983	TEM DESCRI	12 SITEWORK	Kenovation of Facilities	191 Sito Dronorotion	Demolition	alcony	ncrete structure		Remove exterior facade	interior	level	Street level	Main level	Second level	(- 1		A CONTRACTOR OF THE PROPERTY O		

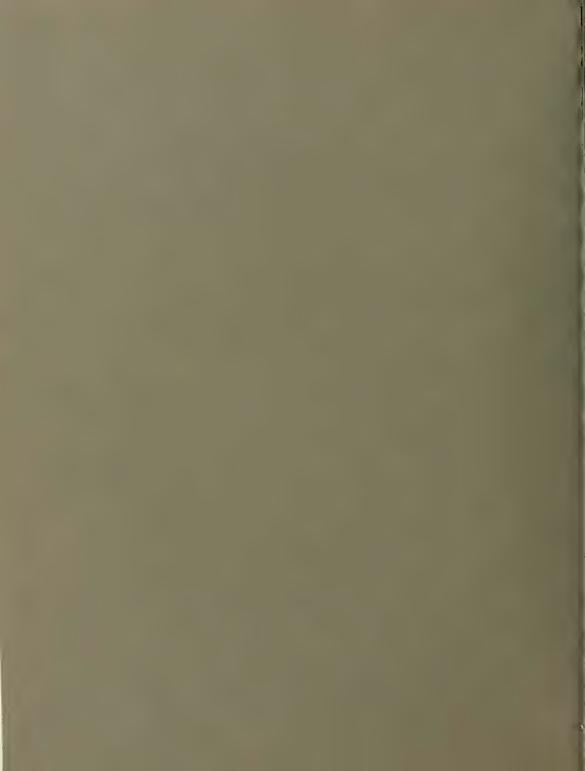
747,194

TOTAL

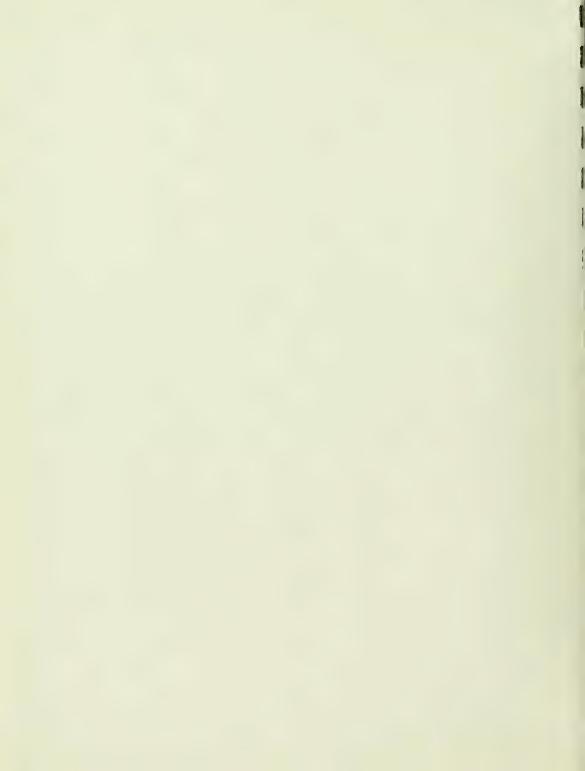


Cost Analysis

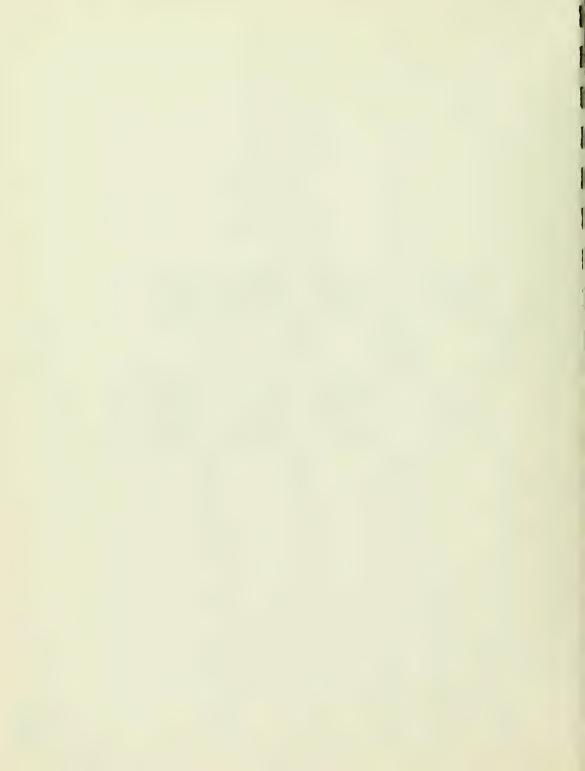
New Construction Within Property Line



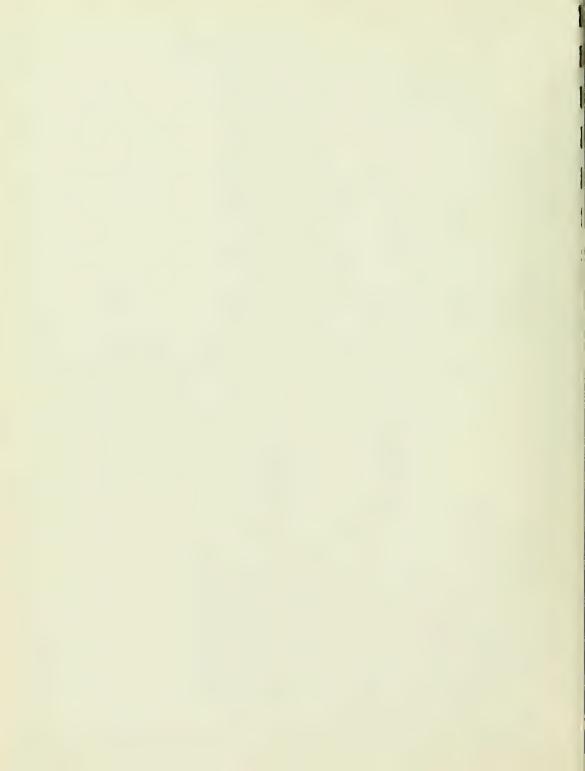
	Project: NEW CONSTRUCTION WITHIN PROPERTY LINE	WITHIN	Cos	Cost Plan/Cost Check No: Date: FEBRUARY 18,	eck No: Y 18,	1983	Sheet No: 20
	Uniformat Element	Amount \$	Total Cost	Rate \$/SF Floor Area		%	Comments
25	Con- Foundations	5. 干水量	502,000		3.86		
	011 - Standard foundations						
	012 - Special foundation conditions	502,000					
, MIL	40%,长00mm,10mm,10mm,10mm,10mm,10mm,10mm,10m		904,000		96.9		
	021 - Slab on grade						
	022 - Basement excavation	782,000					
	023 - Basement walls	122,000					
2542	10 Per abit and district and applications	がは対象を	2,278,000	THE STATE OF THE PARTY OF THE P	7.50		
	031 - Floor construction)	2 218 000		120			
	032 - Roof construction)						
	033 - Stair construction	60,000					
22	an Oct Marking appointed a market a m	とでは	2,467,000	18	8.95		
-	041 - Exterior walls	000 297 6					
	042 — Exterior doors and windows)	2, 10, 10					
11997	105 Higorifia		346,000		2.66		
-	08 - Interior gonstruction		4,340,000	3	3,33		
-	061 — Partitions	992,000			e e		
	062 - Interior finishes	2,883,000	T.				,
	063 — Specialties	465,000					
	07 — Conveying systems		480,000		3.69		
ang and	DB - Machaniost - 27 n. 12.		967,000		7.43		
	081 - Plumbing	121,000					
	082 – HVAC	719,000					
	083 - Fire-protection	127,000					
~	084 - Special mechanical systems						
	Hanscomb Associates Inc.			Elemental Cost Summary Part 1 of 2			



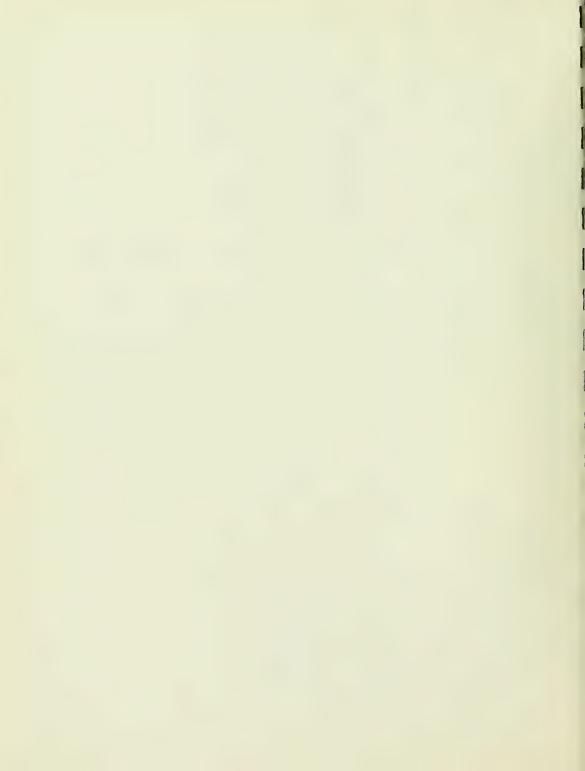
1983 Sheet No: 21	Comments						GROSS FLOOR AREA 130,200 SF	
Cost Plan/Cost Check No: Date: FEBRUARY 18, 1	ost Rate \$/SF % Floor Area	3.84	8.95 000 107.14		63,000 0.48	000 10.78	\$ 118.38	Elemental Cost Summary Part 2 of 2
ON WITHIN	Amount Total Cost	500,000 500,000 500,000	1,165,000 sst 13,949,000	nent	63,000	1,401,000	\$ 15,413,000	
Project: NEW CONSTRUCTION WITHIN PROPERTY LINE	Uniformat Element	09 — Electrical 091 — Service and distribution 092 — Lighting and power 093 — Special electrical systems	10 — General conditions and profit Net Building Cost	11. — Equipment (11.1) — Fixed and movable equipment 112 — Furnishings 113.— Special construction	12. Site work 121 — Site preparation 122 — Site improvements 123 — Site utilities 124 — Off-site work	13 – Contingencies 131 – Design 10% 132 – Escalation 133 – Construction	TOTAL ESTIMATED CONSTRUCTION COST, FEBRUARY 1983	Hanscomb Associates Inc.



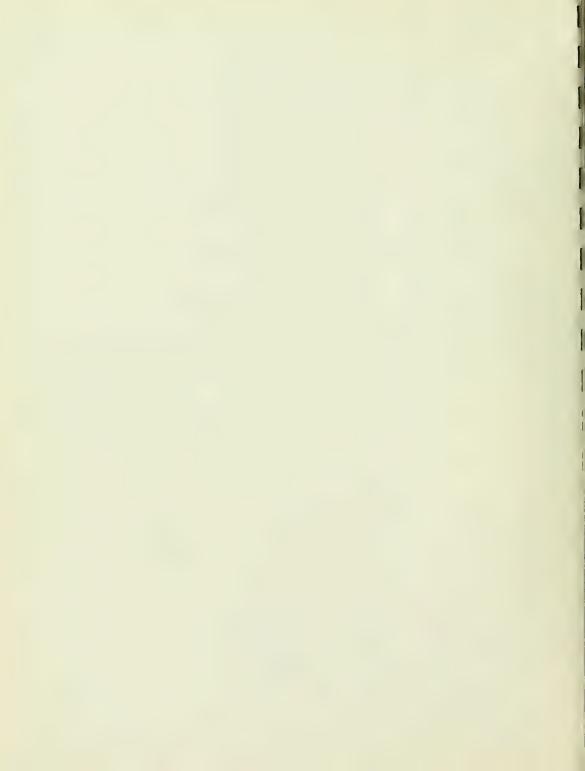
		S	NSTRUCT	CONSTRUCTION COST ESTIMATE	ESTIMATE	Sheet	Sheet No. 22.	
P	PROJECT: HYNES AUDITORIUM EXPANSION		1	PROJE	PROJECT LOCATION:	BOSTON, MA.	MA.	ı
A	ARCHITECT: KALLMANN, MCKINNELL, WOOD			TYPE	TYPE OF CONSTRUCTION:	TION: NEW:	: X RENOV:	V: X ALT:
E D	ESTIMATED BY: HANSCOMB ASSOCIATES INC DATE: FEBRUARY 18, 1983	NG I		GROSS	GROSS AREA S.F. 701,500 VOLUME C.F.	701,500	Budget Prelim Final	Set X
Į								
LINE NO.	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST				TOTAL COST
	B. New Construction within							
	Property Line							
	012 Special Foundation							
	4,000 FSI concrete in mat foundation	CY	2,767	65 00				1/9,855
	Rebar	LB	200,000	07 0				80,000
	Cure, screed and protect			_				
	surface of slab	SF	24,904	$\overline{}$				1,4/1
	Concrete hardener	SF	24,904	09 0				14,942
	Sumps and bases		Allow					10,000
	Underslab drainage		Allow					10,000
	Strengthen existing		A110ty					200.000
1			***************************************					
	1.40%							
	TOTAL	,						502,268



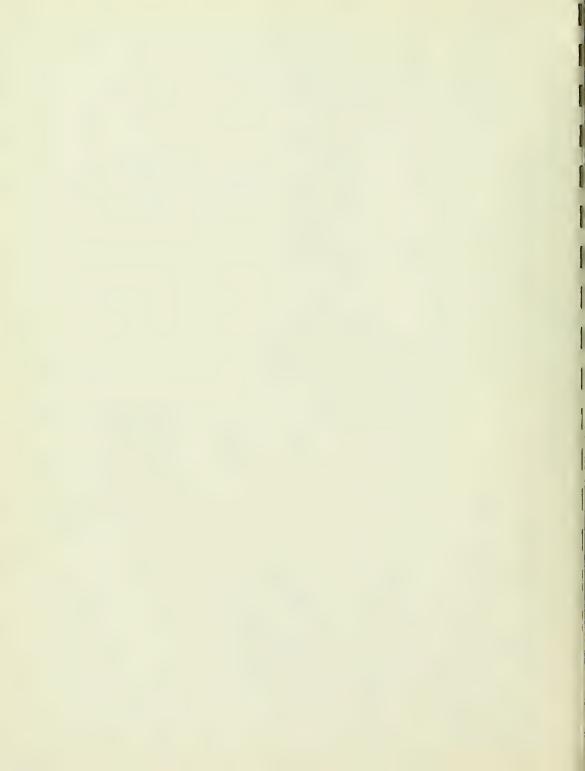
	MAINTER AUTHORITIN MANAGEM	99	NSTRUCT	ION COST	CONSTRUCTION COST ESTIMATE		Sheet No. 23	
PI	PROJECT: HINES AUDITORIUM EXPANSION		1	PRO	PROJECT LOCATION:	WOSTON, MA.	MA.	1
AF	ARCHITECT: KALLMANN, MCKINNELL, WOOD			TYP	TYPE OF CONSTRUCTION: NEW:	TION: NE	V: X RENOV:	OV: X ALT:
ES	ESTIMATED BY: HANSCOMB ASSOCIATES INC	INC		GRO	GROSS AREA S.F. 701,500	701,500	Buc	Budget X
DA	DATE: FEBRUARY 18, 1983		•	VOL	VOLUME C.F.		Fit	Final
LINE								TOTAL COST
9		UNIT	QUANTITY	PNIT COST	L			
11	B. New Construction within Property Line							
	022 Basement Excavation							
	Basement Excavation and	ΔO	701 77	2	00			225 980
	1	5	41,100	+ +				000,000
	- 1	CY	28,236	12 0	00			338,832
	continuous sheet piling: pull and salvage	SF	17,928	11	00			
	Dewatering		Allow					20,000
1								
·								
	TOTAL				٠			782,020



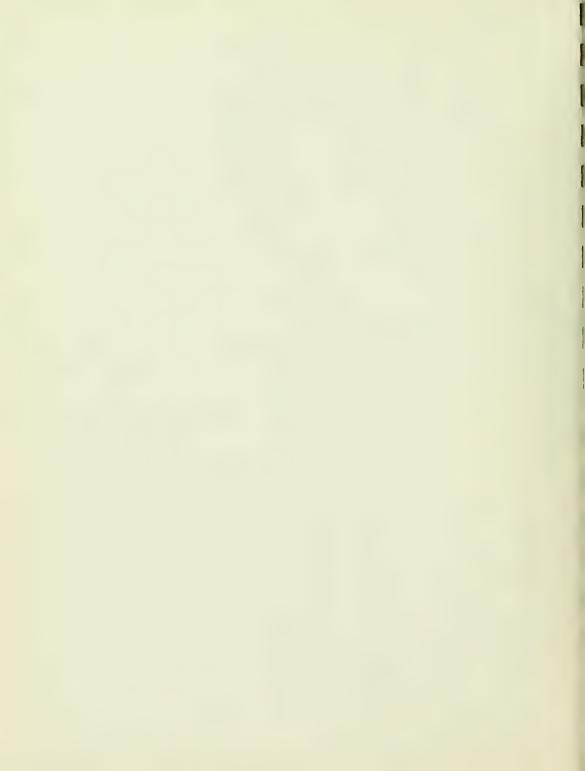
		00	NSTRUCT	CONSTRUCTION COST ESTIMATE	ESTIMATE	Sheet	Sheet No. 24	
ď	PROJECT: HYNES AUDITORIUM EXPANSION		1	PROJ	PROJECT LOCATION:	BOSTON, MA.	MA.	
¥	ARCHITECT: KALLMANN, McKINNELL, WOOD			TYPE	TYPE OF CONSTRUCTION:	TION: NEW:	I: X RENOV:	V: X ALT:
щ	ESTIMATED BY: HANSCOMB ASSOCIATES INC	NC		GROS	GROSS AREA S.F.	701,500	Budget	get X
D'	DATE: FEBRUARY 18, 1983		<i>:</i>	VOLU	VOLUME C.F.		Final	11
LINE	NOITGIBOSSO MATI							TOTAL COST
NO.	02 SUBSTRUCTUR	UNIT	QUANTITY	UNIT COST				
	B. New Construction within Property Line							
	033 Brace 17011		•					
	12" Cup concrete wall:							
	rebar; formwork both							
1	sides; bituminous	A.C.	5 976	17 00				101 592
	Clean and prepare existin	20						4841484
	basement walls		Allow					20,000
	1. The Control of the							
								191 502
	TOTAL	:						121,372



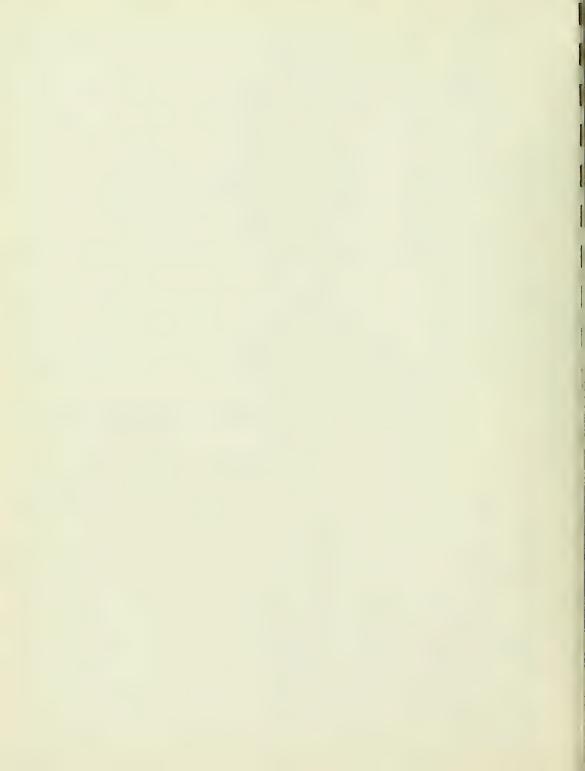
		8	NSTRUCT	CONSTRUCTION COST ESTIMATE	ESTIMATE	Shee	Sheet No. 25	
PF	PROJECT: HYNES AUDITORIUM EXPANSION		1	PROJ	PROJECT LOCATION:	BOSTON, MA.	MA.	1
AF	ARCHITECT: KALLMANN, MCKINNELL, WOOD			TYPE	TYPE OR CONSTRUCTION:	TION: NEW:	V: X RENOV:	V: X ALT:
ES	ESTIMATED BY: HANSCOMB ASSOCIATES INC	I NC		GROS	GROSS AREA S.F.	701,500	Budget	get X
DA	DATE: FEBRUARY 18, 1983			NOTO	VOLUME C.F.		Final	a1
LINE NO.	٠	ŀ	CHAILE					TOTAL COST
	В.	ופס	TOAKILLI	PINIT COST				
	Property Line							
			•					
	031/032 - Floor/Roof							
	Structural steel framing	SF	95,100	11 90				1.131.690
	steel	, c						
	Metal dock concrete fill	N.F.	35,100	6 00				315,900
	to floor and roof	SF	130,200	7 00				520,800
	fireproof							
	ctural		Allow					200,000
	Grand Lobby arches		Allow					50,000
								-
1								
	TOTAL				-			2,218,390



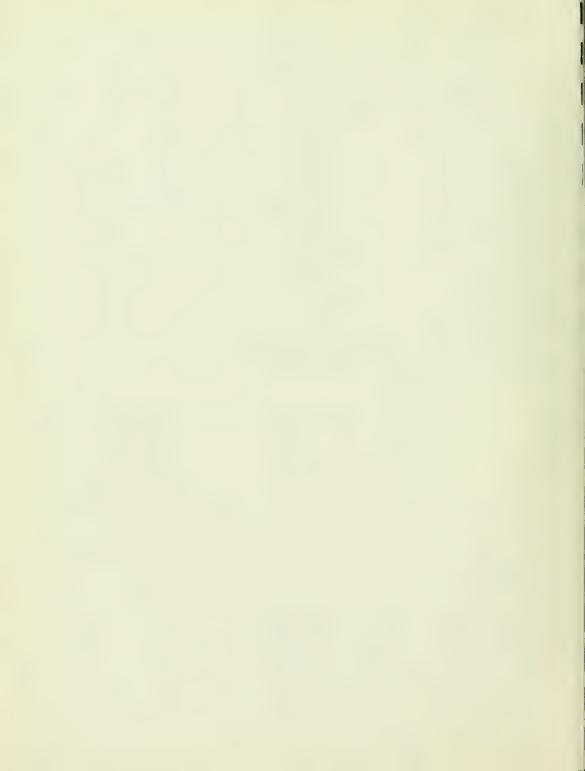
		2	NSTRUCT	CONSTRUCTION COST ESTIMATE	ESTIMATE	Sheet	Sheet No. 26	
PF	PROJECT: HYNES AUDITORIUM EXPANSION		1	PROJ	PROJECT LOCATION:	BOSTON, MA.	MA.	
AF	ARCHITECT: KALLMANN, MCKINNELL, WOOD			TYPE	TYPE OF CONSTRUCTION:	TION: NEW:	. X RENOV:	V: X ALT:
品	ESTIMATED BY: HANSCOMB ASSOCIATES INC	NC	٠	GROS	GROSS AREA S.F.	701,500	Budget	×
D/	DATE: FEBRUARY 18, 1983			VOLU	VOLUME C.F.		Final -	a1
LINE	٠							TOTAL COST
2	O3 SUPERSTRUCT	UNIT	QUANTITY	PINIT COST				
11	Property Line							
	033 - Stair Construction		•					
	Steel pan concrete fill							
	stairs; floor to floor;	FA	6	5 000 00				10 000
	Grand Lobby stairs		Allow	T = T				50,000
1.								
	TOTAL		·		-			60,000



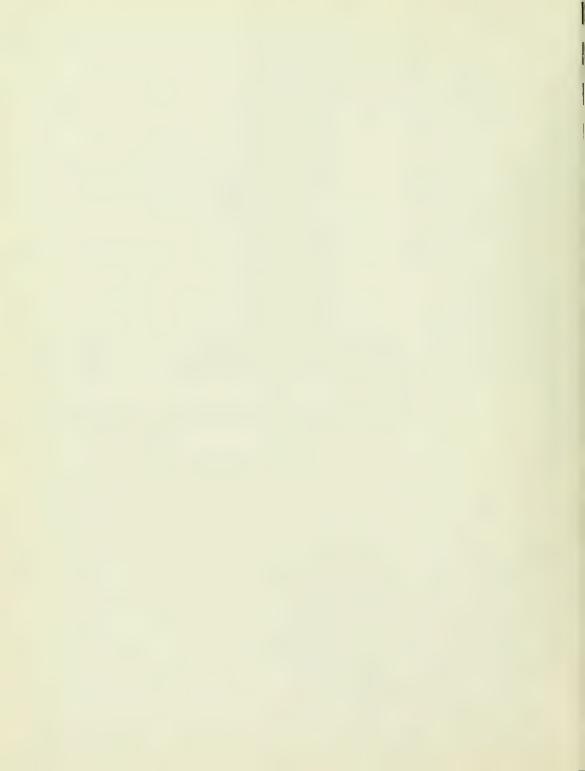
		8	ONSTRUCT	CONSTRUCTION COST ESTIMATE	ESTIMATE	Shee	Sheet No. 27	
PI	PROJECT: HYNES AUDITORIUM EXPANSION		1	PROJ	PROJECT LOCATION:	BOB		
AF	ARCHITECT: KALLMANN, McKINNELL, WOOD			TYPE	TYPE OR CONSTRUCTION:	TION: NEW:	r. X RENOV:	V: X ALT:
ES	ESTIMATED BY: HANSCOMB ASSOCIATES INC	NC		GROS	GROSS AREA S.F.	701,500	Bud	Budget X Prelin
D	DATE: FEBRUARY 18, 1983		•	NOTOL	VOLUME C.F.		Final	a1
LINE	ITEM DESCRIPTION							TOTAL COST
	-	UNIT	QUANTITY	PINIT COST				
1	b. New Construction Within Property Line							
	,							
	Fully glazed main entranc	SF	47,008	20 00				2,350,400
		PR	5	10,000 00				50.000
	Exterior soffits	SF	6,144	00 9				36,864
1			WILLOW					30,000
1								
	. TOTAL							2,467,264



		8	NSTRUCT	CONSTRUCTION COST ESTIMATE	ESTIMATE	Shee	Sheet No. 28	
PF	PROJECT: HYNES AUDITORIUM EXPANSION		1	PRO.	PROJECT LOCATION:	BOSTON, MA.	MA.	1
AR	ARCHITECT: KALLMANN, MCKINNELL, WOOD		1	TYPI	TYPE OF CONSTRUCTION:	TION: NEW:	Y: X RENOV:	V: X ALT:
ES	ESTIMATED BY: HANSCOMB ASSOCIATES INC	INC		GROS	GROSS AREA S.F.	701,500	Budget Prelin	×
DA	DATE: FEBRUARY 18, 1983		<i>:</i>	NOLI	VOLUME C.F.		Final	a1
LINE	ITEM DESCRIPTION							TOTAL COST
O.	05 ROOFING	UNIT	QUANTITY	PINIT COST				
1	B. New Construction within Property Line							
		. [1				7) 5 700
	Architectural roof	J.C.	22,100	00 /				243,700
	1 1		Allow					100,000
				•				
1								
	TOTAL							345,700



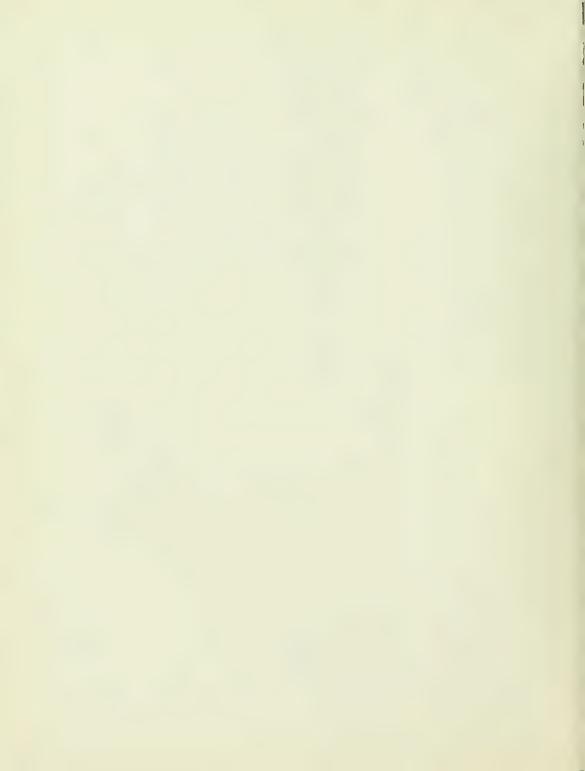
		2	NSTRUCT	CONSTRUCTION COST ESTIMATE	ESTIMATE	Sheet	Sheet No. 30	
P.	PROJECT: HYNES AUDITORIUM EXPANSION		1	PROJ	PROJECT LOCATION:	BOSTON, MA.	MA.	,
A	ARCHITECT: KALLMANN, MCKINNELL, WOOD		. 1	TYPE	TYPE OF CONSTRUCTION:	TION: NEW:	RENOV:	V: X ALT:
ш	ESTIMATED BY: HANSCOMB ASSOCIATES INC	INC		GROS	GROSS AREA S.F.	701,500	Budget	set X
Q	DATE: FEBRUARY 18, 1983			VOLU	VOLUME C.F.		Final	11
LINE NO.	ITEM DESCRIPTION 06 INTERIOR CONSTRUCTION	UNIT	QUANTITY	UNIT COST				TOTAL COST
	B. New Construction within Property Line							
	Fir							
	Meeting space	SF	62,000	8 00				496,000
	circulation space	SF	68,200	35 00				2,387,000
	TOTAL							2,883,000



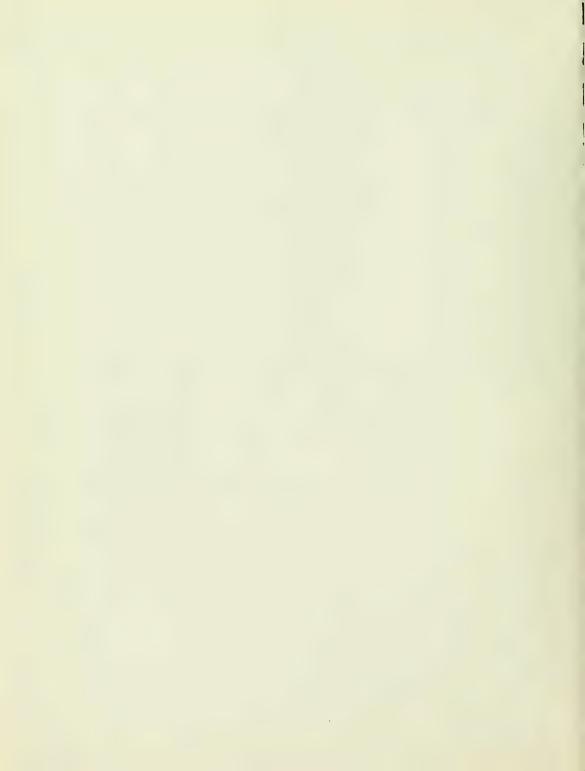
		S	NSTRUCT	TON COST	CONSTRUCTION COST ESTIMATE	Sh	Sheet No. 31	
PF	PROJECT: HYNES AUDITORIUM EXPANSION		1	PRO	PROJECT LOCATION:	1	BOSTON, MA.	
AR	ARCHITECT: KALLMANN, McKINNELL, WOOD		1	TYP	TYPE OR CONSTRUCTION:		NEW: X RENOV:	OV: X ALT:
ES	ESTIMATED BY: HANSCOMB ASSOCIATES INC	INC		GRO	GROSS AREA S.F.	701,500	Buc	×
DA	DATE: FEBRUARY 18, 1983			NOL	VOLUME C.F.		Ffr	Final
LINE NO.	ITEM DESCRIPTION	TIND	QUANTITY	UNIT COST	į.			TOTAL COST
11	B. New Construction within							
	063 - Specialties							
	Meeting space	SF	62,000	2 0	00			124,000
	Circulation space	SF	68,200	5 0	00			341.000
1								·
	TOTAL			1		1		465,000



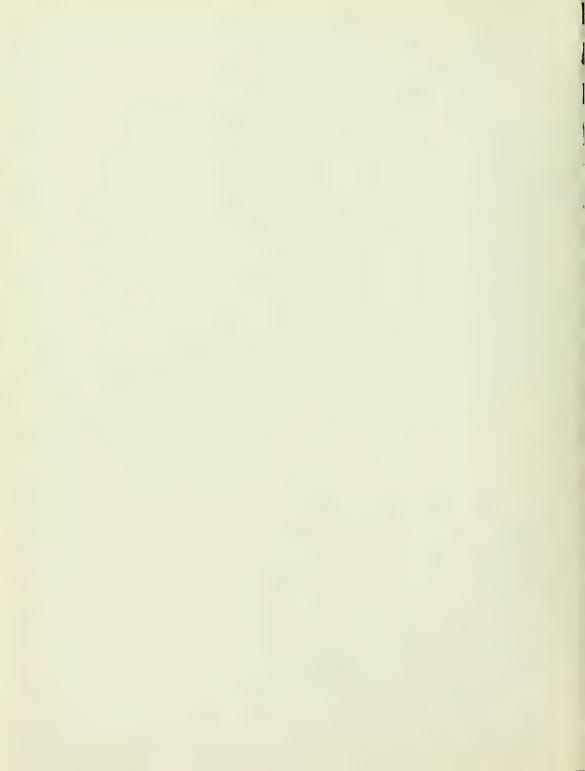
	ı	ENOV: X ALT:	Prelin Final	TOTAL COST			400,000			80,000							480,000
Sheet No. 32	۲۸.	×	Fin														
Shee	BOSTON, MA.	ION: NEW:															
STIMATE	PROJECT LOCATION:	TYPE OF CONSTRUCTION:	VOLUME C.F.														
CONSTRUCTION COST ESTIMATE	PROJE	TYPE	VOLUM		UNIT COST												
NSTRUCT	1	1 .			QUANTITY		7 .			7							
ö		NC	1		TINO		EA		Ē	EA							
	PROJECT: HYNES AUDITORIUM EXPANSION	ARCHITECT: KALLMANN, McKINNELL, WOOD ESTIMATED BY: HANSCOMB ASSOCIATES INC	DATE: FEBRUARY 18, 1983	ITEM DESCRIPTION	-	b. New Construction Within Property Line	Escalators	4,000 lb capacity geared	passenger elevator;	330 FFM; 3 SCOP							TOTAL
	PR	AR	DA	LINE	j Z												



))	CONSTRUCTION COST ESTIMATE	ion cos	Sİ L	TIMATE		Sheet No. 33	33	
PR	PROJECT: HYNES AUDITORIUM EXPANSION		1	PR	OJEC	PROJECT LOCATION:	1	BOSTON, MA.		
AR	ARCHITECT: KALLMANN, MCKINNELL, WOOD		1	TY	PE 0	TYPE OF CONSTRUCTION:	LION: N	NEW: X	RENOV:	X ALT:
ES	ESTIMATED BY: HANSCOMB ASSOCIATES INC	NC		GR	0.05	GROSS AREA S.F.	701,500		Budget Prelim	et X
DA	DATE: FEBRUARY 18, 1983			VO	LUME	VOLUME C.F.		1	Final	1
LINE	ITEM DESCRIPTION									TOTAL COST
Š.	-	UNIT	QUANTITY	PNIT COST	ST					
	B. New Construction Within									
	Mechanical Summary				+				1	
	Plumbing									120,750
	Fire Protection									126,500
	HVAC								+	/18,/20
									\dagger	
									+	
									\dagger	
					İ					
									+	
					T					
									+	
	. TOTAL MECHANICAL	HANIC/	I.						i	966,000



		5	CONSTRUCTION COST ESTIMATE	ION COS	T ES'	TIMATE		Sh	Sheet No. 34	
Ы	PROJECT: HYNES AUDITORIUM EXPANSION		1	PR	OJEC	PROJECT LOCATION:		BOSTON, MA.	ΑΛ.	1
A	ARCHITECT: KALLMANN, McKINNELL, WOOD		1	TY	PE 0	TYPE OF CONSTRUCTION:		NEW:	X RENOV:	V: X ALT:
Ë	ESTIMATED BY: HANSCOMB ASSOCIATES INC	NC .		GR	0.55	GROSS AREA S.F.	701,500		Budget Prelim	Set X
D/	DATE: FEBRUARY 18, 1983			VO	LUME	VOLUME C.F.			Final	11
LINE NO.	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	ST					TOTAL COST
	B. New Construction within Property Line									
	Plumbing	Ţ		003	+					25 000
	Piping Storm Sewer	LS								50,000 30,000
	Subtotal Overhead & Profit 15%									105,000 15,750
					+					
Ш					+					
					+					
					\parallel			\prod		
	1.70				+					
					+					
	. TOTAL P	PLUMBING	JG.		+					120.750



35	1	RENOV: X ALT:	Budget X Prelim	Final	TOTAL COST				5,000	110,000	10,300							-	126,500
Sheet No. 3	BOSTON, MA.	NEW: X REN	Bu Br	FI															
			701,500																l '
STIMATE	PROJECT LOCATION:	TYPE OF CONSTRUCTION:	GROSS AREA S.F.	VOLUME C.F.															-
CONSTRUCTION COST ESTIMATE	PROJE	TYPE	GROSS	VOLUM		UNIT COST		i.	500										
NSTRUCTÍ	1	1				QUANTITY			1000										ECTION
00			INC			UNIT			EA										E PROT
	PROJECT: HYNES AUDITORIUM EXPANSION	ARCHITECT: KALLMANN, McKINNELL, WOOD	ESTIMATED BY: HANSCOMB ASSOCIATES INC	DATE: FEBRUARY 18; 1983	ITEM DESCRIPTION		B. New Construction within Property Line	Fire Protection	Fire Hose Cabinets		Overnead & Froing 15%								TOTAL FIRE PROTECTION
	d	A	щ	a	LINE	2	-												



		5	NSTRUCT	NOI.	ST	CONSTRUCTION COST ESTIMATE	٠	She	Sheet No. 36	
PR	PROJECT: HYNES AUDITORIUM EXPANSION		1	Α.	ROJE	PROJECT LOCATION:		BOSTON, MA.		1
AR	ARCHITECT: KALLMANN, McKINNELL, WOOD		1	-	YPE	TYPE OF CONSTRUCTION: NEW:	TION:	NEW:	X RENOV:	V: X ALT:
ES	ESTIMATED BY: HANSCOMB ASSOCIATES II	INC		9	ROSS	GROSS AREA S.F. 701,500	701,500		Bud Pre	Budget X Prelim
DA	DATE: FEBRUARY 18, 1983			Λ	OLUN	VOLUME C.F.			Final	a1
LINE	NOITGIBOSE METI									TOTAL COST
0	TEN DESCRIPTION	TINO	QUANTITY	UNIT COST	COST					
	B. New Construction within Property Line									
	HVAC									
	ng.	LS			1			+		150,000
	A.H. Equipment	L'S			1			1		100,000
	Air Distribution Sheet									
	Metal will all acces.	LS								300,000
	Contr	LS								50,000
								1		
	Overhead & Profit 15%				1					93,750
						,				
					1			1		
								+		
	4 4 4									
					I					
					I					
	. TOTAL	HVAC	U			-				718,750



Sheet No. 37 BOSTON, MA. CONSTRUCTION COST ESTIMATE

ESTIMATED BY: HANSCOMB ASSOCIATES INC ARCHITECT: KALLMANN, MCKINNELL, WOOD PROJECT: HYNES AUDITORIUM EXPANSION

PROJECT LOCATION:

TYPE OF CONSTRUCTION: NEW: X Š 0

×	×	
RENOV:	Budget	Final
WEW:		
THE OF CONSTRUCTION: NEW: X	701,500	
STRUC	S. H.	
R CON	AREA	C
(PE 0	NOSS AREA S.F.	DLUME C.F.

UNIT COST

QUANTITY

LIND

New Construction within

B

ITEM DESCRIPTION

LINE NO.

DATE: FEBRUARY 18, 1983

Power & Distribution

Property Line

Lighting System Phone System

			 											_	 		 _
V: X ALT:	Bet X 11n al	TOTAL COST		250,000	000,06	20,000	40,000	5,000	12,000	18,000	12,000	20 000	000,000	3,000			
RENOV:	Budget Prelim Final																
×																	
WEW:				I													
 N	,500																

SISISIS

LS

LS S

Intrusion Alarm & Video Wireless Paging System

Sound Paging System

Clock System Fire Alarm

Radio & TV System

Exterior Door Intercom

System System 500,000

TOTAL



		00	CONSTRUCTION COST ESTIMATE	CION COS	T ES	STIMATE		Sheet No.	Vo38	
PI	PROJECT: HYNES AUDITORIUM EXPANSION		1	P	ROJEC	PROJECT LOCATION:	BOST	BOSTON, MA.		î
A	ARCHITECT: KALLMANN, MCKINNELL, WOOD			T.	PE C	TYPE OF CONSTRUCTION: NEW:	TION: N	EW: X	RENOV:	V: X ALT:
Ü	ESTIMATED BY: HANSCOMB ASSOCIATES INC	NC		G	1055	GROSS AREA S.F. 701,500	701,500		Budget Prelim	get X
D	DATE: FEBRUARY 18, 1983)A	LUME	VOLUME C.F.		1	Final	a1
LINE	TIEM DESCRIPTION									TOTAL COST
8		TINO	QUANTITY	PNIT	COST					
11	B. New Construction within Property Line									
	121 - Site Preparation									
	Break up and remove	CF	25,000	C	5					3 1
	alla	77.	47,000							חוחכ / א
1										
	TOTAL									62,500



Cost Analysis

New Construction In Front of Commercial Block C



Project: NEW CONSTRUCTION I COMMERCIAL BLOCK "	IN FRONT OF		Cost Plan/Cost Check No: Date: FEBRUARY 18,	1983	Sheet No: 39
Uniformat Element	Amount \$	Total Cost	Rate \$/SF Floor Area	%	Comments
01 - Foundations					
011 - Standard foundations					
012 - Special foundation conditions			, ,		
02 - Subiractura	***				
021 — Slab on grade					
022 - Basement excavation					
023 - Basement walls					
03 Superstructure 1		1,747,000	22.03		
031 – Floor construction	000 623 1				
032 - Roof construction	1,0/2,000			_	
033 - Stair construction	75,000				
04 Exterior closure		1,300,000	16.39		
041 — Exterior walls	1.300.000				
rs and windows)					
05 - Roofing	ではない	171,000	2.16		
06 - Interior construction		3,966,000			
061 - Partitions	793,000				
062 - Interior finishes	2,776,000				
063 — Specialties	397,000				
07 — Conveying systams		780,000	6 84		
08 Mechanical		437,000	5.51		
081 — Plumbing	000'69	100 A			
082 – HVAC	285,000				



Hanscomb Associates Inc.

Elemental Cost Summary Part 1 of 2

083 - Fire protection

83,000

0.5



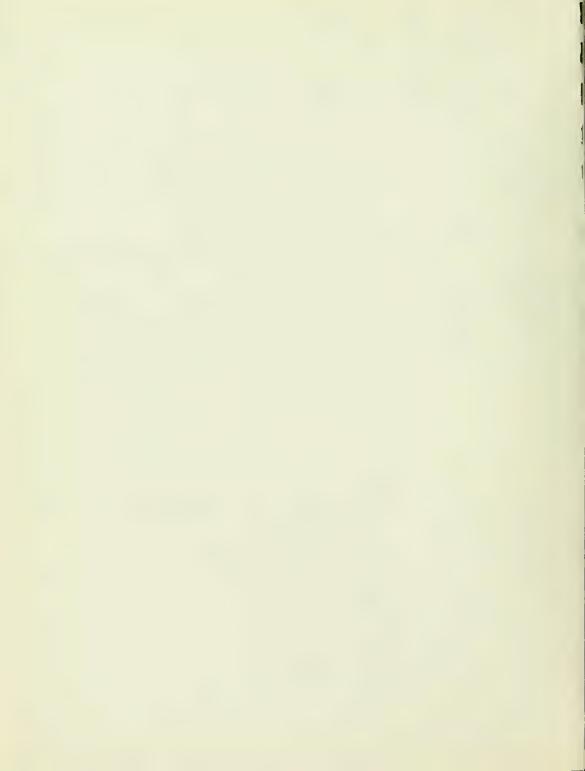
Project: NEW CONSTRUCTION IN OF COMMERCIAL BLOCK	N FRONT	D CC	Cost Plan/Cost Check No: Date: FEBRUARY 18,	No: 1983	Sheet No: 40
Uniformat Element	Amount \$	Total Cost	Rate \$/SF Floor Area	%	Comments
09 Electrical		1,750,000	22.07		
091 — Service and distribution					
092 - Lighting and power	1,750,000				
093 — Special electrical systems		A	je je		
10 — General conditions and profit	松心疹	943,000	11.89		
Ne		11,094,000	139.90		
11 - Equipment					
111 - Fixed and movable equipment				**************************************	
112 — Furnishings					
113— Special construction				¥280	
12 - Site work		231.000	7 91		
121 — Site preparation	231,000			ROP	
122 – Site improvements					
123 - Site utilities					
124 – Off-site work					
13 — Contingencies		1,133,000	14.29		
131 - Design 10%	1,133,000			1232	
132 - Escalation					
133 — Construction					
TOTAL ESTIMATED CONSTRUC- TION COST, FEBRUARY 1983	S.	12,458,000	\$ 157.1	이	GROSS FLOOR AREA 79,300 SF
U-3					
Hanscomb Associates Inc.			Elemental Cost Summary Part 2 of 2		



		S	NSTRUCT	TION COST	CONSTRUCTION COST ESTIMATE	She	Sheet No. 4	41	
PI	PROJECT: HYNES AUDITORIUM EXPANSION		1	PRO	PROJECT LOCATION:	BOSTON, MA.			
AI	ARCHITECT: KALLMANN, MCKINNELL, WOOD			TYP	TYPE OF CONSTRUCTION: NEW:	TION: NE	W: X	RENOV:	X ALT:
田	ESTIMATED BY: HANSCOMB ASSOCIATES INC	INC		GRO:	GROSS AREA S.F.	701,500		Budget	et X
'n	DATE: FEBRUARY 18, 1983			VOLI	VOLUME C.F.			Final	
LINE	TEM DESCRIPTION								TOTAL COST
NO.		UNIT	QUANTITY	HILL COST	T				
	C. New Construction in Front of Commercial								
	Block "C"		•						
	031/032 - Floor/Roof								
	Construction Structural steel floor								
		SF	79,300	11 90	0				943,670
	Structural steel roof	ū	20 100						180 000
	Metal deck concrete fill	10	70,100	1					100, 200
	and roof	SF	99,400	4 00					397,600
	Spray tireprooting to structural steel		Allow						150.000
								\dagger	
	-					1			
	TOTAL					1		Ì	1,6/2,1/0



			CONSTRUCTION COST ESTIMATE	TON COS	T ES	STIMATE	She	Sheet No.	5. 42	
	PROJECT: HYNES AUDITORIUM EXPANSION		i	PR	OJEC	PROJECT LOCATION:	BOSTON, MA.	, MA.		1
	ARCHITECT: KALLMANN, MCKINNELL, WOOD	0		ΥT	PE (TYPE OR CONSTRUCTION:		NEW: X	RENOV:	V: X ALT:
	ESTIMATED BY: HANSCOMB ASSOCIATES INC	INC		GR	055	GROSS AREA S.F.	701,500		Budget Prelim	set X
	DATE: FEBRUARY 18, 1983	٠	:	A	LUME	VOLUME C.F.		1	Final	11
5	LINE TEM DESCRIPTION									TOTAL COST
-	C. New Constructi	TINI	QUANTITY	UNIT COST	ST					
1 1 1	Front of Commerci Block "C"									
	033 Ctair Construction				\dagger			+		
	te									
	stairs; floor to floor; landings	EA	6	5.000	00					45.000
	0							-		
	Spiral stairway structure		Allow							30,000
								-		
Ц										
L								+		
1								+		
11								\prod		
1								+		
	TOTAL									75,000



			'anı	ine, citt pr	MOTEON			
		S	NSTRUCT	CONSTRUCTION COST ESTIMATE	ESTIMATE	Shee	Sheet No. 43	
PI	PROJECT: HYNES AUDITORIUM EXPANSION		1	PROJ	PROJECT LOCATION:	BOSTON, MA.	MA.	1
Y	ARCHITECT: KALLMANN, MCKINNELL, WOOD			TYPE	TYPE OF CONSTRUCTION:	TION: NEW:	7: X RENOV:	V: X ALT:
ES	ESTIMATED BY: HANSCOMB ASSOCIATES INC	NC		GROS	GROSS AREA S.F. 701,500	701,500	Bud	Budget X
70	DATE: FEBRUARY 18, 1983			NOT	VOLUME C.F.		Final	a1
LINE	ITEM DESCRIPTION			-				TOTAL COST
ON .	04 EXTERIOR CLC	TINU	QUANTITY	UNIT COST				
11	Front of Commerci Block "C"							
	Glass curtain wall sys.	SF	22,800	50 00				1,140,000
	tully glazed main entrance	PR	12	10.000 00				120 000
	Exterior soffits	SF	6,7200	9				40,320
							•	
						1		
1								
	IATOT							1,300,320
				1				



PF	PROJECT: HYNES AUDITORIUM EXPANSION		ONSTRUCT	CONSTRUCTION COST ESTIMATE PROJECT LOCA	OST ESTIMATE PROJECT LOCATION:	BOS	Sheet No. 44 BOSTON, MA.	
AI P	ARCHITECT: KALLMANN, MCKINNELL, WOOD FSTIMATED RY: HANSCOMB ASSOCIATES INC	DINC	1 1	TYPB	TYPE OF CONSTRUCTION:	TION: NE	"	ENOV: X ALT:
i à	1 1	1		NOTO			Final	ala
LINE	MOTOBOSE MATI							TOTAL COST
NO		TINO	QUANTITY	UNIT COST				
	C. New Construction in Front of Commercial			-				
	Block C		•					
	8	SF	20,100	7 00				140,700
	Architectural 1001 treatment		Allow					30,000
Ш								
		-						
	TOTAL							170,700
-	to the second second to the second se	-						



			.1112	IIIE. CITT OF DOOLON	110 100	5		
		ວິ	NSTRUCT	CONSTRUCTION COST ESTIMATE	ESTIMATE	2006	Sneet No. 43	
PI	PROJECT: HYNES AUDITORIUM EXPANSION		1	PROJ	PROJECT LOCATION:	BOSTON, MA.	1, MA.	I
AF	ARCHITECT: KALLMANN, McKINNELL, WOOD			TYPE	TYPE OF CONSTRUCTION:	TION: NEW:	×.	RENOV: X ALT:
ES	ESTIMATED BY: HANSCOMB ASSOCIATES INC	INC		GROS	GROSS AREA S.F.	701,500	В	×
/α	DATE: FEBRUARY 18, 1983			NOTO	VOLUME C.F.			Final
LINE	TEW DESCRIPTION							TOTAL COST
, NO.		TINO	QUANTITY	UNIT COST				
	C. New Construction in Front of Commercial							
	Block "C"		•					
	061 Partitions							
	Interior partitions and							
	Prefunction and			-				
	circulation space	SF	79,300	10 00				793.000
								•
	TOTAL							793,000
			-		A STATE OF THE PROPERTY OF THE PARTY OF THE	THE RESIDENCE OF THE PERSON NAMED IN COLUMN TWO IS NOT THE OWNER, THE PERSON NAMED IN COLUMN TRANSPORT OF THE OWNER, THE PERSON NAMED IN COLUMN TWO IS NOT THE OWNER, THE PERSON NAMED IN COLUMN TWO IS NOT THE OWNER, THE PERSON NAMED IN COLUMN TWO IS NOT THE OWNER, THE PERSON NAMED IN THE OWNER, THE PERSON NAMED IN THE OWNER, THE PERSON NAMED IN THE OWNER, THE PERSON NAMED IN THE OWNER, THE PERSON NAMED IN THE OWNER, THE PERSON NAMED IN THE OWNER, THE PERSON NAMED IN THE OWNE		



			CONSTRUCTION COST ESTIMATE	TON COS	T ES	TIMATE	0.7	Sheet	Sheet No. 46	
PR	PROJECT: HYNES AUDITORIUM EXPANSION		1	PF	OJEC	PROJECT LOCATION:		BOSTON, MA.	IA.	1
AR	ARCHITECT: KALLMANN, MCKINNELL, WOOD			T	PB C	TYPE OF CONSTRUCTION:		WEW:	X RENOV:	JV: X ALT:
ES	ESTIMATED BY: HANSCOMB ASSOCIATES INC	INC		GR	1055	GROSS AREA S.F.	701,500		Buc	Budget X
DA	DATE: FEBRUARY 18, 1983			ΛO	LUME	VOLUME C.F.			Fir	Final
LINE	TEM DESCRIPTION									TOTAL COST
Š.	STI	TIND	QUANTITY	HINIT COST	ST					
1	Front							T		
	Block "C"		•							
	062 Interior Finishes							I		
	Interior finishes to:									
	circulation space	SF	79,300	35	00			I		2,775,500
					\pm					
								I		
					+					
								1		
	TOTAL									2,775,500



		8	NSTRUCT	CONSTRUCTION COST ESTIMATE	ESTIMATE	Shee	Sheet No. 47	
PR	PROJECT: HYNES AUDITORIUM EXPANSION		1	PROJ	PROJECT LOCATION:	BOSTON, MA.	MA.	ı
AR	ARCHITECT: KALLMANN, McKINNELL, WOOD			TYPE	TYPE OF CONSTRUCTION:	rion: New:	: X RENOV:	V: X ALT:
ES	ESTIMATED BY: HANSCOMB ASSOCIATES INC	NC		GROS	GROSS AREA S.F. 701,500	701,500	Budget	get X
DA	DATE: FEBRUARY 18, 1983			NOTO	VOLUME C.F.		Final	al
LINE	HEW DESCRIPTION							TOTAL COST
NO.		UNIT	QUANTITY	UNIT COST				
	C. New Construction in Front of Commercial							
	Block "C"							
	20 to 10 to 20 0							
	Specialties to:							
	Prefunction and							
	circulation space	SF	79,300	5 00				396,500
	TOTAL				-			396,500
	The state of the s	-						



			THE.	माह, जार कर म	norton			
		2	NSTRUCT	CONSTRUCTION COST ESTIMATE	ESTIMATE	Sheet No.	. 48	
PR	PROJECT: HYNES AUDITORIUM EXPANSION		1	PROJ	PROJECT LOCATION:	BOSTON, MA.		
AR	ARCHITECT: KALLMANN, MCKINNELL, WOOD			TYPE	TYPE OF CONSTRUCTION:	TION: NEW: X	RENOV:	/: X ALT:
ES	ESTIMATED BY: HANSCOMB ASSOCIATES INC	NC		GROS	GROSS AREA S.F. 701,500	701,500	Budget	et X
DA	DATE: FEBRUARY 18, 1983			NOTO	VOLUME C.F.		Final	
LINE	ITEM DESCRIPTION							TOTAL COST
	07 CONVEYING SYSTEMS C. New Construction in	I I	T T T T T T T T T T T T T T T T T T T	inti cosi				
	Front of Commercial Block "C"							
	Escalators	EA	9					600.000
	4,000 lb capacity geared							
		L) A	6					180 000
	330 FM; 4 SCOP	EA	7					100,000
							-	
	. TOTAL							780,000



Versign (A. A. T. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	TOTAL COST 69,000 83,375 285,200	437,575
No.		
N N		1
OST ESTIMATE PROJECT LOCATION: BG TYPE OF CONSTRUCTION: GROSS AREA S.F. 701,50		
CONSTRUCTION COST ESTIMATE PROJECT LOCA TYPE OF CONS GROSS AREA S VOLUME C.F.	PNIT COST	
ONSTRUCTI	GUANTITY	CAL
	UNIT	MECHANICAL
PROJECT: HYNES AUDITORIUM EXPANSION ARCHITECT: KALLMANN, MCKINNELL, WOOD ESTIMATED BY: HANSCOMB ASSOCIATES INC DATE: FEBRUARY 18, 1983	C. New Construction in Front of Commercial Block "C" Mechanical Summary Plumbing Fire Protection HVAC	TOTAL ME
PRO ARC EST DAT	LINE MO.	

1110. UALL U. LUCAUII



			1111	70, 1110	,			
		8	NSTRUCT	CONSTRUCTION COST ESTIMATE	ESTIMATE	Shee	Sheet No. 50	
P	PROJECT: HYNES AUDITORIUM EXPANSION		1	PROJ	PROJECT LOCATION:	BOSTON, MA.	1.	,
Ā	ARCHITECT: KALLMANN, McKINNELL, WOOD			TYPE	TYPE OF CONSTRUCTION:	TION: NEW:	X RENOV:	/: X ALT:
Щ	ESTIMATED BY: HANSCOMB ASSOCIATES INC	NC		GROS	GROSS AREA S.F. 701,500	701,500	Budget Prelin	et X
Ω .	DATE: FEBRUARY 18, 1983			NOTO	VOLUME C.F.		Final	1
LINE	ITEM DESCRIPTION							TOTAL COST
	C. New Construction in Front of Commercial Block "C"	TINO	QUANTITY	UNIT COST				
	Plumbing							
	Fixtures Piping Storm Souse	LS	7.0	005				25,000
	Culytotal	OT.						000,63
	Overhead & Profit 15%							9,000
	. TOTAL PL	PLUMBING	50					69,000



	,
STIMATE	PROJECT LOCATION:
COST E	PROJE
CONSTRUCTION COST ESTIMATE	HYNES AUDITORIUM EXPANSION
	HYN
	PROJECT: HY

Sheet No. 51

BOSTON, MA.

ESTIMATED BY: HANSCOMB ASSOCIATES INC ARCHITECT: KALLMANN, McKINNELL, WOOD

LINE NO.

RENOV: ×. NEW: TYPE OF CONSTRUCTION:

X ALT:

Budget Prelim Final GROSS AREA S.F. 701,500

DA	DATE: FEBRUARY 18, 1983			VOLU	VOLUME C.F.	Final	al
IN.							TOTAL COST
NO.	HEM DESCRIPTION	TINO	QUANTITY	UNIT COST			
	C. New Construction in Front						
	NO. C.						
	Fire Protection						
	Sprinkler Heads	EA	400	175			70,000
	Fire Hose Cabinets	EA	5	500			2,500
	Subtotal						72.500
	Overhead & Profit 15%						10,875
							٠
	. TOTAL FIRE PROTECTION	RE PRO'	TECTION				83,375



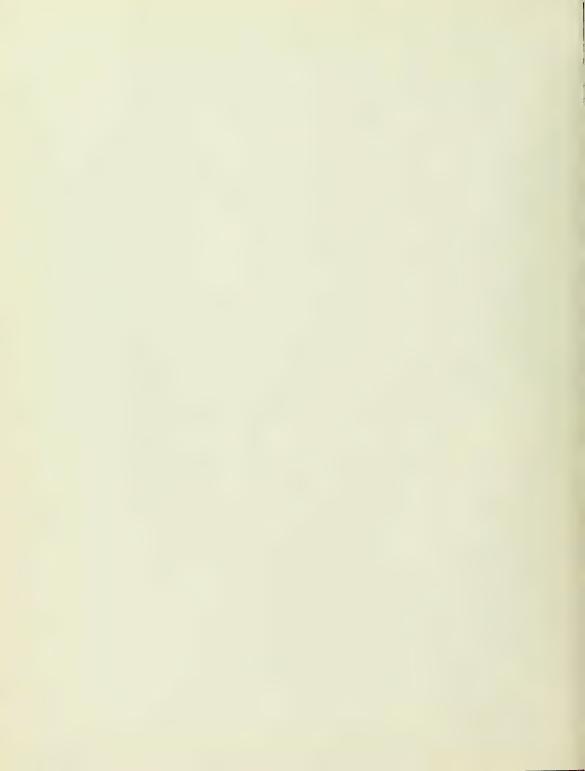
			ing. Citi	JO	MOTEOG			
		00	NSTRUCT	ION COST	CONSTRUCTION COST ESTIMATE	Sh	Sheet No.,52	
PR	PROJECT: HYNES AUDITORIUM EXPANSION		,	PROJ	PROJECT LOCATION:	BOSTON, MA.	MA.	1
AR	ARCHITECT: KALLMANN, McKINNELL, WOOD			TYPI	TYPE OF CONSTRUCTION: NEW:	TION: NEW	V: X RENOV:	JV: X ALT:
ES	ESTIMATED BY: HANSCOMB ASSOCIATES INC	NC	1	GROS	GROSS AREA S.F.	701,500	Bu	Budget X
DA	DATE: FEBRUARY 18, 1983			NOLL	VOLUME C.F.		F	Final
LINE	ITEM DESCRIPTION	FIMIL	MIANTITY	TY COST				TOTAL COST
	C. New Construction in Front of Commercial Block "C"							
	HVAC	, c	•					20 000
	Piping Terminal Equipment A H Equipment	LS						4 4 4
	Distribu	LS						120,000
	Auro, jemp, controls	CI						000 876
	Subtotal Overhead & Profit 15%							37,200
	TOTAL HVAC	AC						285,200



53	ч	RENOV: X ALT:	Budget X Prelim	Final	TOTAL COST					1,500,000	90,000	65,000	16,000	24,000	2,000	12,000	8,000		32,000	T, 000						1,750,000
Sheet No. 5	BOSTON, MA.	NEW: X		F3																						
		rion:	701,500																							
STIMATE	PROJECT LOCATION:	TYPE OF CONSTRUCTION:	GROSS AREA S.F.	VOLUME C.F.																						
CONSTRUCTION COST ESTIMATE	PROJE	TYPE	GROSS	VOLUM		UNIT COST																				
NSTRUCT	1	ı				QUANTITY		•																		
00			υ,			UNIT				LS	LS	LS	LS	LS	LS	LS	LS		LS	LS						
	PROJECT: HYNES AUDITORIUM EXPANSION	ARCHITECT: KALLMANN, McKINNELL, WOOD	ESTIMATED BY: HANSCOMB ASSOCIATES INC	DATE: FEBRUARY 18, 1983	NOITE DESCRIPTION		Front of Commercial	potrio	Including New Substation	& Site Elec.	Power Distribution	Lighting	Phone		Radio & CCTV System	Sound Paging	ing	Intrusion Alarm & Video	System	Exterior Door Intercom						TOTAL
	PR	AR	ES	DA'	LINE	o,																			·	



		Ö	ONSTRUCT	TON COST	CONSTRUCTION COST ESTIMATE	She	Sheet No. 54	
PI	PROJECT: HYNES AUDITORIUM EXPANSION		1	PRO.	PROJECT LOCATION:	BOSTON, MA.	MA.	
AI F	ARCHITECT: KALLMANN, MCKINNELL, WOOD FETTMATED BY. HANSCOMB ASSOCIATES INC	C C C C C C C C C C C C C C C C C C C	1	TYPI	TYPE OF CONSTRUCTION:	TION: NEW:	X B	ENOV: X ALT:
70		1		VOLI	VOLUME C.F.	701,500	Final Final	
LINE	ITEM DESCRIPTION							TOTAL COST
S.	c	TINO	QUANTITY	UNIT COST				
	Block "C"		•					
	121 - Site Preparation							
	Breakup and remove	10	1000					
	Breakup and remove	J.C.	17,000	00.2.				30,000
	underground parking							
	garage structure	SF	20,100	10 00				201,000
1.								
	TOTAL							231,000



Cost Analysis

New Construction on Roof of Hynes



L				the same and the same and		
	Project: NEW CONSTRUCTION ON OF HYNES	ROOF	Cost P	lan/Cost Check FEBRUARY	No: 1983	Sheet No: 55
	Uniformat Element	Amount \$	Total Cost	Rate \$/SF Floor Area	%	Comments
**	01: Foundations and the state of the state o	A. T. T.				
	011 - Standard foundations					
	012 - Special foundation conditions					
**	4022 Sassuading has the sast of the	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				
	021 - Slab on grade					
	022 - Basement excavation					
	023 — Basement walls		No. of the second		Andre i	
**	The second second second second		.682,000	29.82		
L	031 - Floor construction)				58	
	032 - Roof construction)	1,642,000				
	033 - Stair construction	40,000				
**	CONTRACTOR DECIDION OF A SAME WAS		746,000	13.23		
_	041 — Exterior walls	746.000				
	042 — Exterior doors and windows)					
	05 - Roofing	D. A.F. C. I.	445.000	7 89		
	os interior constitución de la la la la la la la la la la la la la		574,000	10.18		
	061 - Partitions	162,000				
	062 - Interior finishes	309,000				
	063 — Specialties	103,000				
Se.	07 — Conveying systems					
1.4	08 - Medianical		,026,000	124.57		
	081 - Plumbing	805,000				
	082 – HVAC	5,790,000				
	083 Fire protection	431,000				
U-2	084 — Special mechanical systems). 		
THE STATE OF THE S	Hanscomb Associates Inc.			Elemental Cost Summary		

Cost Summary Part 1 of 2



JCTION ON ROOF Cost Plan/Cost Check No: Sheet No: 56 Date: FEBRUARY 18, 1983	Sost Rate \$/SF Floor Area	tion) 714,000
Project: NEW CONSTRUCTION ON ROOF OF HYNES	Element	1,



1		Š	1115.	ALLE, CARA CO COLORON	10000	Sods	Shoot No 57	
	HONES AINTEADTHM EVBANCTON		NSIKUCI	CONSTRUCTION COST ESTIMATE	STIMATE			
P.	PROJECT: HINES AUDITORION EXPANSION		1	PROJ	PROJECT LOCATION:	BOSTON, MA.	MA.	1
A	ARCHITECT: KALLMANN, MCKINNELL, WOOD	0		TYPE	TYPE OF CONSTRUCTION:	TION: NEW:	x RENOV:	V: X ALT:
Ä	ESTIMATED BY: HANSCOMB ASSOCIATES INC	INC		GROS	GROSS ARBA S.F. 701,500	701,500	Budget	get X
Ω	DATE: FEBRUARY 18, 1983			NOTA	VOLUME C.F.		Final	a1
LINE	MOTEGED MET							TOTAL COST
20	-	TINO	QUANTITY	UNIT COST				
1	Koot of Hynes							
			•					
	031/032 - Floor/Roof							
	Structural steel floor							
	(E1 74	SF	56,404	11 90				6/1,20/
-	Structural steel root framing	SF	56.404	00 6				507.636
	Metal deck concrete fill							
	and roof	SF	112,808	4 00				451,232
	00		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					000 61
	structural steel		ALLOW					17,000
	TOTAL				٠			1,642,075



		ដ	ONSTRUCT	CONSTRUCTION COST ESTIMATE	ESTIMATE	She	Sheet No. 58	
PI	PROJECT: HYNES AUDITORIUM EXPANSION		1	PROJ	PROJECT LOCATION:	BOSTON, MA.		
A	ARCHITECT: KALLMANN, MCKINNELL, WOOD		1	TYPE	TYPE OF CONSTRUCTION:	TION: WEW:	V: X RENOV:	V: X ALT:
ES	ESTIMATED BY: HANSCOMB ASSOCIATES INC	NC I		GROS	GROSS AREA S.F.	701,500	Bud	Budget X Prelin
D	DATE: FEBRUARY 18, 1983		•	VOLU	VOLUME C.F.		Final	a1
LINE	ITEM DESCRIPTION							TOTAL COST
Z.O.	03 SUPERSTRUCTI	TINO	QUANTITY	UNIT COST				
	D. New Construction on Roof of Hynes							
	033 Stair Construction	·	•					
	Stair Construction		Allow					40,000
				-				
1								
	TOTAL							40,000



			TYPE OF CONSTRUCTION: NEW: X RENOV: X ALT:	Budget X Prelin	Final	TOTAL COST				
	Sheet No. 59		×	1	-					
	Sheet	BOSTON, MA.	NEW:					-		
		1	CTION:	701,500						
	CONSTRUCTION COST ESTIMATE	PROJECT LOCATION:	OR CONSTRUC	GROSS AREA S.F. 701,500	VOLUME C.F.					
	COST E	PROJE	TYPB	GROSS	VOLUM		QUANTITY UNIT COST			
45	CTION						TY DINI			
•	ONSTRU	ı					QUANTI			•
				INC	•		TINO			
		PROJECT: HYNES AUDITORIUM EXPANSION	ARCHITECT: KALLMANN, MCKINNELL, WOOD	ESTIMATED BY: HANSCOMB ASSOCIATES INC	DATE: FEBRUARY 18, 1983	NOITGIGGE MATI	04 EXTERIOR CLOSURE	D. New Construction on	Root of Hynes	
		D4	X	m	D	LINE	N			

,						
ITEM DESCRIPTION					TOTA	TOTAL COST
04 EXTERIOR CLOSURE	UNIT	QUANTITY	QUANTITY UNIT COST			
New Construction on				_		
Root of Hynes						
		•				
Exterior wall treatments;						

		-			The same of the sa	
UNIT	QUANTITY UNIT COST	UNIT CO	ST			
	•					
SF	SF 45,720	15	00			685.800

IDIAL COST			

000,09

6,000

SF

masonry Mechanical equipment enclosure

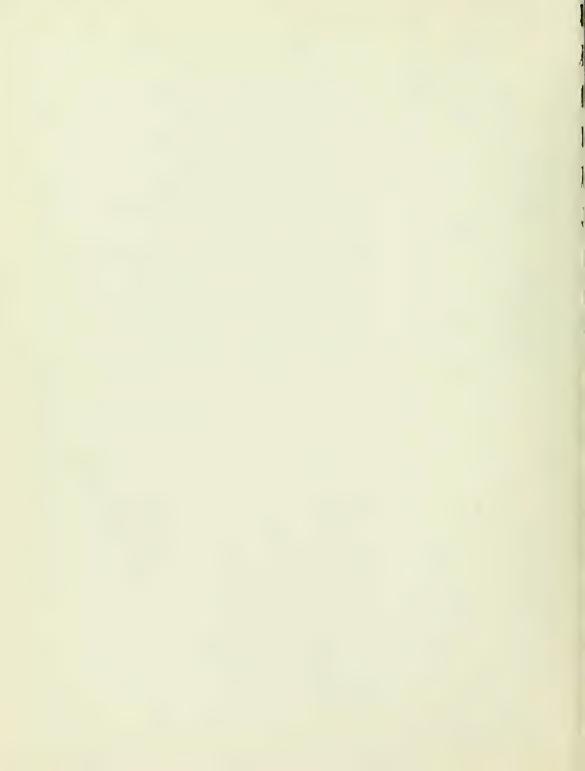
LINE NO.

745,800

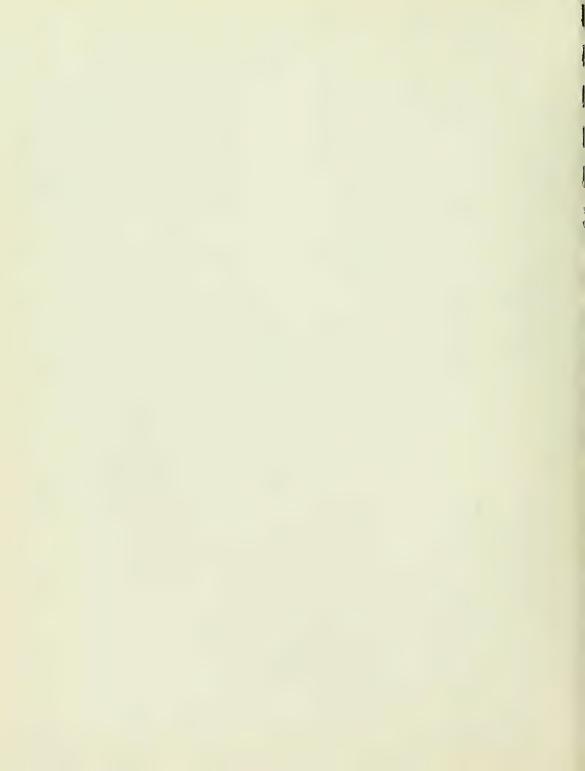
. TOTAL



PROJECT: HYNES AUDITORIUM EXPANSION	3	NSTRUCI -	CONSTRUCTION COST ESTIMATE PROJECT LOCA	r EST	IMATE	BOS	Sheet No.	No. 60		
ARCHITECT: KALLMANN, MCKINNELL, WOOD ESTINATED BY: HANSCOMB ASSOCIATES IN	2.		TYI	DE OF	CONSTRUC	9	EW:	X RENO	V: X ALT:	<u>.</u>
DATE: FEBRUARY 18, 1983	·		10A	UME	C.F.			Fine	1	
ITEM DESCRIPTION				-					TOTAL COST	1
	UNIT	QUANTITY	UNIT CO	T						
tion on s							+			
IRMA roofing system	SF	56,404	7 (00					394,828	
Architectural roof treatment		Allow							50,000	
							H			
				\parallel			H			
				H			H			П
				-			+			
				H						
TOTAL									444,828	
	F: HINES AUDITORIDA BATANS LOND FED BY: HANSCOMB ASSOCIATES IN FEBRUARY 18, 1983 OS ROOFING New Construction on Roof of Hynes IRMA roofing system Architectural roof treatment Treatment Treatment TOTAL	Q NI NC	TING ONIT	UNIT QUANTITY UNIT	UNIT QUANTITY UNIT	UNIT QUANTITY UNIT	UNIT GUANTITY JINIT COST SF 56,404 7 00 CONSTRUCTION Allow Allow	INC GROSS ARBA S.F. 701, VOLUME C.F. SF 56,404 7 00 A110w A110w	TYPE OF CONSTRUCTION: BUSTON, MA. TYPE OF CONSTRUCTION: NEW: X RENO READ RENO READ RENO TYPE OR CONSTRUCTION: BOSTON, MA. TYPE OR CONSTRUCTION: BUGGET X GROSS AREA S.F. 701,500 Prelin Final	



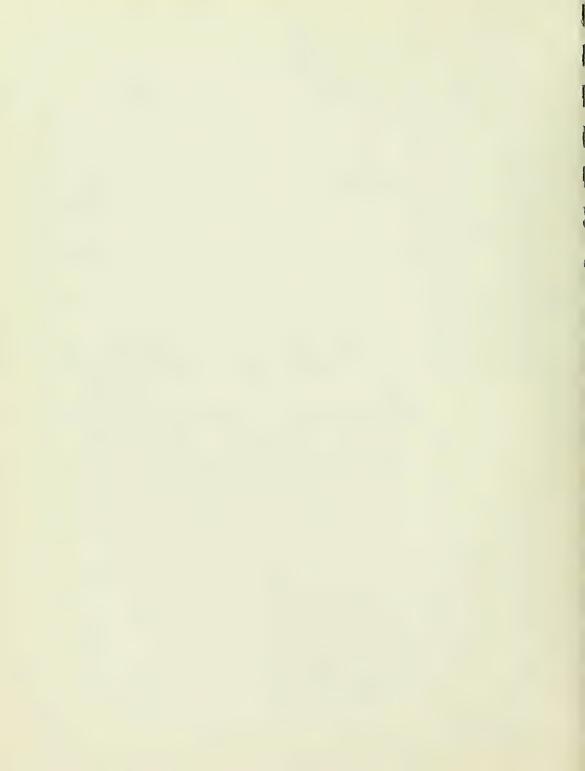
			*****	1111. C111 .U. DOCTOR				
		2	NSTRUCT	CONSTRUCTION COST ESTIMATE	ESTIMATE	Shee	Sheet No. 61	
P	PROJECT: HYNES AUDITORIUM EXPANSION		1	PROJ	PROJECT LOCATION:	BOSTON, MA.	ми.	1
¥	ARCHITECT: KALLMANN, MCKINNELL, WOOD		1	TYPE	TYPE OF CONSTRUCTION:	TION: NEW:	. X RENOV:	V: X ALT:
m	ESTIMATED BY: HANSCOMB ASSOCIATES INC	NC		GROS	GROSS AREA S.F. 701,500	701,500	Budget	get X
D/	DATE: FEBRUARY 18, 1983			NOTO	VOLUME C.F.		Final	a1
LINE	MOJEGIO SEGO METER							TOTAL COST
Š.		TINO	QUANTITY	UNIT COST				
1	D. New Construction on Roof of Hypes			·				
	061 Partitions							
	Interior partitions and							
	Meeting space	A S.	11 000	00 5.				55 000
	Exhibition space	SF	36.500	1 50				54.750
1	Support space	SF		3 50				٧ ~
	Prefunction and					Í		
	circulation space	SF	5,900	7 00				41,300
							•	
1								
	TOTAL							161,550



	1	OV: X ALT:	Budget X Prelim	Final	TOTAL COST					1 1	91.250		118,000								309,250
Sheet No. 62	BOSTON, MA.	NEW: X RENOV:		F1																	
		JCTION:	701,500														-				
STIMATE	PROJECT LOCATION:	TYPE OF CONSTRUCTION: NEW:	GROSS AREA S.F. 701,500	VOLUME C.F.																	٠
CONSTRUCTION COST ESTIMATE	PROJI	TYPE	GROS	VOLUI	maco matur	PINTE COST				8 00	2 50	T	20 00								
NSTRUCT	1	1			ALLINVIN	- Common		-		11,000	36,500		5 900								
		0	INC		TIMIL					SF	N S.		SF								
	PROJECT: HYNES AUDITORIUM EXPANSION	ARCHITECT: KALLMANN, MCKINNELL, WOOD	ESTIMATED BY: HANSCOMB ASSOCIATES INC	DATE: FEBRUARY 18, 1983	. ITEM DESCRIPTION		Root of Hynes	- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1-	Interior Finishes to:	Meeting space	Exhibition space	Prefunction and	circulation space								TOTAL
	PR	AR	ES	DA	LINE		11														



		S	NSTRUCI	CONSTRUCTION COST ESTIMATE	ESTIMATE	She	Sheet No. 63	
P.R. AR	PROJECT: HYNES AUDITORIUM EXPANSION ARCHITECT: KALLMANN, MCKINNELL, WOOD ECTIMATED BY. HANSCOMB ASSOCIATES INC	INC ON	1 1	TYPE	PROJECT LOCATION: BG TYPE OF CONSTRUCTION:	FION: NEW:	× ×	/: X ALT:
DA		1		NOTOA	•	000100	Final Final	11
LINE.	ITEM DESCRIPTION 063 INTERIOR CONSTRUCTION D. New Construction on Roof of Hynes	UNIT	QUANTITY	UNIT COST				TOTAL COST
	063 Specialties Specialties to: Meeting space Exhibition space	SF	11,000 36,500 3,000	2 00 1 50 0 75				22,000 54,750 2,250
	Prefunction and circulation space	SF	5.900	4 00				23,600
	TOTAL							102,600



AR AR BEST AR AR AR AR AR AR AR AR AR AR AR AR AR	PROJECT: HYNES AUDITORIUM EXPANSION ARCHITECT: KALLMANN, MCKINNELL, WOOD ESTINATED BY: HANSCOMB ASSOCIATES INC DATE: FEBRUARY 18, 1983 D. New Construction on Roof of Hynes Mechanical Summary Plumbing Fire Protection HVAC	CONSTRUCTION COST ESTIMATE PROJECT LOCA TYPE OF CONS' GROSS AREA S VOLUME C.F.	PROJ TYPE GROS VOLU	ST ES SOJEC SOSS OLUMB SST	PROJECT LOCATION: BOST TYPE OF CONSTRUCTION: GROSS AREA S.F. 701,500 VOLUME G.F.	Sheet: TION: NEW: 701,500	Sheer NEW:	ON X	ENOV: X ALT: Budget X Prelin Final Final TOTAL COST 5,790,250	
										-

TOTAL MECHANICAL



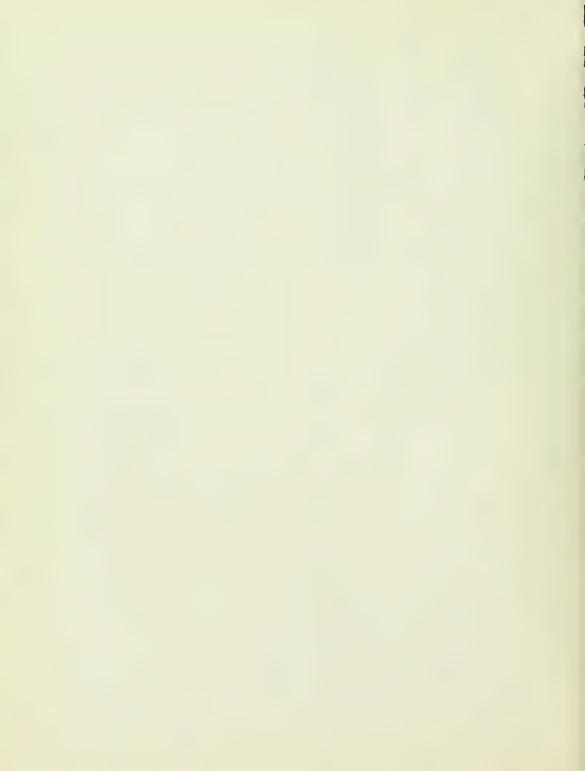
PROJECT ARCHITE ESTIMAT DATE: FE	ARCHITECT: KALLMANN, MCKINNELL, WOOD ESTINATED BY: HANSCOMB ASSOCIATES INC DATE: FEBRUARY 18, 1983 D. New Construction on Roof of Hynes Fixtures Fixtures Plumbing Fixtures	D _N	1	PRO	PROJECT LOCATION:	1	5		
ARCHITE ESTIMAT DATE: FE	위 의 나는 1년 11	NC		-					
TIMAT		NC I	1	TYP	TYPE OF CONSTRUCTION: NEW:	JCTION:	VEW:	RENOV:	V: X ALT:
TE: FI				GRO	GROSS AREA S.F. 701,500	701,500		Budget	et X
	ITEM DESCRIPTION New Construction on Roof of Hynes Plumbing Fixtures Fixtures			NOL	VOLUME C.F.			Final	n
,	New Construction on Roof of Hynes Plumbing Fixtures								TOTAL COST
-	1 1 1 1 1	UNIT	QUANTITY	UNIT COST					
	Plumbing Fixtures Piping								
	Fixtures	1							1000
		EA	200	200					500,000
	Storm Sewer	I.S							100,000
	Subtotal Overhead & Profit 15%								700,000
	. TOTAL PL	PLUMBING	r.b.						805,000

INE. CIII OF BUSION



)V: X ALT:	Budget X Prelin Final	TOTAL COST	350 <u>.000</u> 25,000	375,000 56,250		. 431,250
Sheet No. 66 BOSTON, MA. : NEW: X RENOV:						
V: Bos	701,500					
OST ESTIMATE PROJECT LOCATION: BO TYPE OF CONSTRUCTION:	GROSS AREA S.F.					
CONSTRUCTION COST ESTIMATE PROJECT LOCA TYPE OF CONS	GROSS	UNIT COST	175			
NSTRUCT		QUANTITY	2.000			ECTION
	INC	UNIT	EA			RE PROT
PROJECT: HYNES AUDITORIUM EXPANSION ARCHITECT: KALLMANN, MCKINNELL, WOOD	ESTIMATED BY: HANSCOMB ASSOCIATES DATE: FEBRUARY 18, 1983	D. New Construction on	Fire Protection Sprinkler Heads Fire Hose Cabinets	Subtotal Overhead & Profit 15%		TOTAL FIRE PROTECTION
PR	ES	LINE NO.				

ME CLIL OF BUDLON



		RENOV: X ALT:	Budget X Prelim	Final	TOTAL COST					750,000	100,000	/50,000	2,000,000	200,000	600,000	100,000	500,000	35,000	5 035 000	755,250						5,790,250
Sheet No. 67	BOSTON, MA.	NEW: X		E4																						
CONSTRUCTION COST ESTIMATE	PROJECT LOCATION:	TYPE OF CONSTRUCTION:	GROSS AREA S.F. 701,500	VOLUME C.F.		T																				
rion cost	PRO	TYP	GRO	VOL		UNIT COST																				i
ONSTRUC	1	ı				QUANTITY																				
٥			INC			UNIT				LS	LS		Ţ.	LS	LS	LS	LS	LS								HVAC
	PROJECT: HYNES AUDITORIUM EXPANSION	ARCHITECT: KALLMANN, McKINNELL, WOOD	ESTIMATED BY: HANSCOMB ASSOCIATES INC	DATE: FEBRUARY 18, 1983	ITEM DESCRIPTION		D. New Construction on	Koor or Hynes	HVAC	Piping	Terminal Equipment	nent	Metal with all acces	Cooling Towers	Chillers	Pumps	Temp.	Air & Water Balance	Subtotal	Overhead & Profit 15%						TOTAL H
	P	¥	щ	D,	LINE	2	1	1																		



		ŭ	CONSTRUCTION COST ESTIMATE	ION CO	ST EST	IMATE		Sheet	Sheet No. 68	m
PR	PROJECT: HYNES AUDITORIUM EXPANSION		i	I.A.	ROJECT	PROJECT LOCATION:		BOSTON, MA.		
AR	ARCHITECT: KALLMANN, McKINNELL, WOOD			Ĺ	(PE OF	TYPE OF CONSTRUCTION:		NEW: X	RENOV:	V: X ALT:
ES	ESTIMATED BY: HANSCOMB ASSOCIATES INC	NC		[5]	ROSS A	GROSS AREA S.F. 701,500	701,500		Bud	Budget X Prelia
DA	DATE: FEBRUARY 18, 1983			V(VOLUME C.F.	C. F.			Final	al
LINE	MOITGIGG SAGE									TOTAL COST
NO.	ובש הבסחורו	TINO	QUANTITY	UNIT COST	JST					
	D. New Construction on Roof									
	or Hynes Power & Distribution	LS								200 000
	ng.	LS								160,000
	Phone	LS								15,000
		rs.								40,000
	Kadio & 1V System	2 2								3,000
	Sound Paging	LS								24.000
	Ing	LS								16,000
	rusion Alarm	LS								20,000
	EM. Generator & Synchro	0 1								000 001
	namamaha	CI								130,000
					-					
	TOTAL									714,000



P.R	PROJECT: HYNES AUDITORIUM EXPANSION		1	PRO.	PROJECT LOCATION: BOSTON, MA.	BOSTON,	MA.	
AR	ARCHITECT: KALLMANN, MCKINNELL, WOOD			TYPI	TYPE OF CONSTRUCTION: NEW: X	rion: New	I: X RENOV:	V: X ALT:
ES	ESTIMATED BY: HANSCOMB ASSOCIATES INC	NC		GROS	GROSS ARBA S.F. 701,500	701,500	Bud	Budget X Prelim
DA	DATE: FEBRUARY 18, 1983			NOT	VOLUME C.F.		Final	a1
LINE	ITEM DESCRIPTION							TOTAL COST
o,	12 SITEWORK	TINO	QUANTITY	UNIT COST	E.,			
	D. New Construction on							
	Root of Hynes							
			٠					
	121 Site Preparation							
	Remove roof decking and							
	structural steel roof							
	framing	SF	56,404	1.0 00				564.040

Sheet No. 69

CONSTRUCTION COST ESTIMATE

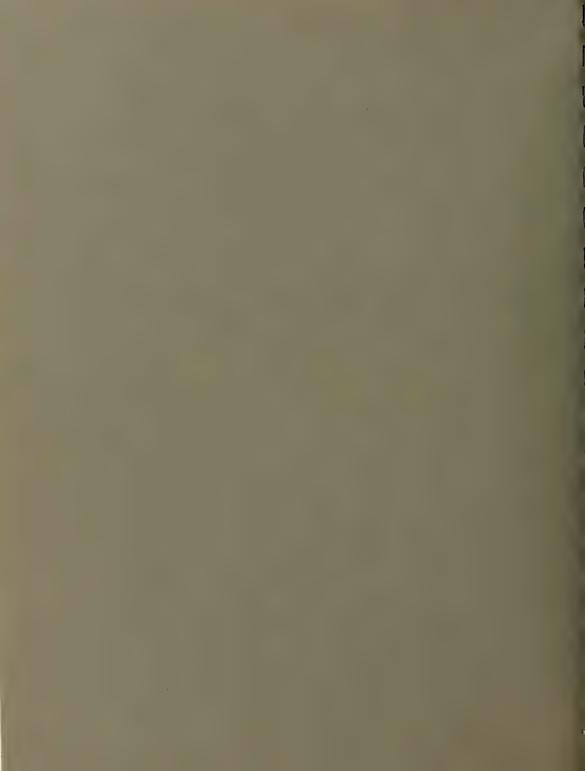
564,040

TOTAL



Cost Analysis

Demolition & New Construction In Commercial Block C & West Court



Project: DEMOLITION AND NEW COMMERCIAL BLOCK "C	AND NEW CONSTRUCTION IN BLOCK "C" AND WEST COURT	1	Cost Plan/Cost Check No: Date: FEBRUARY 18,	1983	Sheet No: 70
Uniformat Element	Amount \$	Total Cost	Rate \$/SF Floor Area	%	Comments
01 - Foundations					
011 - Standard foundations					
012 - Special foundation conditions					
A NOT SUBSTITUTE THE PARTY OF T					
021 — Slab on grade		at office the			
022 - Basement excavation					
023 — Basement walls					
103 - Superstructura		2,214,000	27.74		
031 - Floor construction	2,188,000	(1.1.)			
032 - Roof construction)			**		
033 - Stair construction	26,000				
04 - Exterior closure		1,956,000	24.51		
041 — Exterior walls)	1 956 000				
042 - Exterior doors and windows)					
05 - Roofing		407,000	5.10		
. 06 - Interior constitudtion		2,555,000	32.02		
061 - Partitions	593,000				
062 - Interior finishes	1,686,000				
063 — Specialties	276,000				
07 — Conveying systems	を大きなから	200,000	2.51		
08 - Machanical		1,657,000	20.76		
081 - Plumbing	164,000	, W. F. W.			
082 - HVAC	1,351,000				



084 - Special mechanical systems Hanscomb Associates Inc.

083 - Fire protection

Elemental Cost Summary Part 1 of 2



1983 Sheet No: 71	Comments						GROSS FLOOR AREA 79,800 SF	
Cost Plan/Cost Check No: Date: FEBRUARY 18,	Rate \$/SF %	00 14.11	11.87		4.57	000 14.32	\$ 157.52	Elemental Cost Summary
AND NEW CONSTRUCTION IN BLOCK "C" AND WEST COURT	Amount Total Cost	1,126,000	947,000 11,062,000		365,000	1,143,000	\$ 12,570,000	
Project: DEMOLITION AND NEW COMMERCIAL BLOCK "	Uniformat Element	09 — Electrical 091 — Service and distribution 092 — Lighting and power 093 — Special electrical systems)	10 — General conditions and profit Net Building Cost 11 — Equipment	111 — Fixed and movable equipment 112 — Furnishings 113 — Special construction	12 – Site work 121 – Site preparation 122 – Site improvements 123 – Site utilities 124 – Off-site work	13 - Contingencies 131 - Design 10% 132 - Escalation 133 - Construction	TOTAL ESTIMATED CONSTRUC- TION COST, FEBRUARY 1983	U-3 Hanscomb Associates Inc.



Cost Summary Part 2 of 2



			THE.	CIII OF	THE CITY OF BUSION				
		S	NSTRUCT	ION COS	CONSTRUCTION COST ESTIMATE		She	Sheet No. 72	
PI	PROJECT: HYNES AUDITORIUM EXPANSION		1	PR	PROJECT LOCATION:	ION:	BOSTON, MA.	MA.	
A	ARCHITECT: KALLMANN, MCKINNELL, WOOD			TY	TYPE OF CONSTRUCTION:	RUCTIO	N: NEW:	×	OV: X ALT:
Ä	ESTIMATED BY: HANSCOMB ASSOCIATES INC	INC		GR	GROSS AREA S.F.		701,500	Bu	Budget X Prelim
D/	DATE: FEBRUARY 18, 1983		<i>:</i>	VO	VOLUME C.F.			E	Final
LINE	NOTTGIGO SEG METER								TOTAL COST
Š.	03 SUPERSTRUCTU	UNIT	QUANTITY	UNIT COST	ST				
1	4			·					
1	cial Block "C" and West						1		
	031/033 Elect/Beef								
	ion								
	Structural steel floor								
		SF	79,800	1.1	06				949,620
	Structural steel roof	C	000 67	-			-		207. 200
	Additional steel in	O.F.	43,800	7	00				354,200
	over tu		Allow						150,000
	Metal deck concrete fill	E C	000						7.97, 7.00
	Spray fireproofing to	O.F.	123,000	1	000				004,474
	structural steel		Allow				·	=	200,000
						1	-		

2,188,220

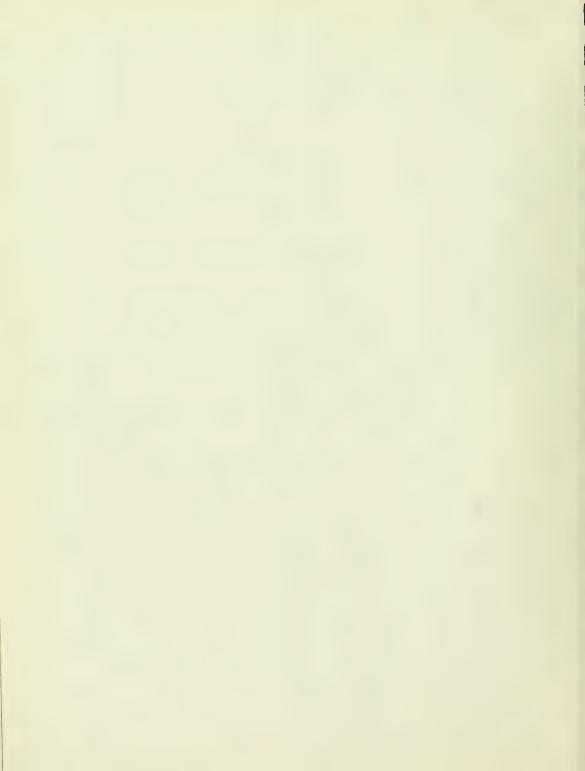
TOTAL



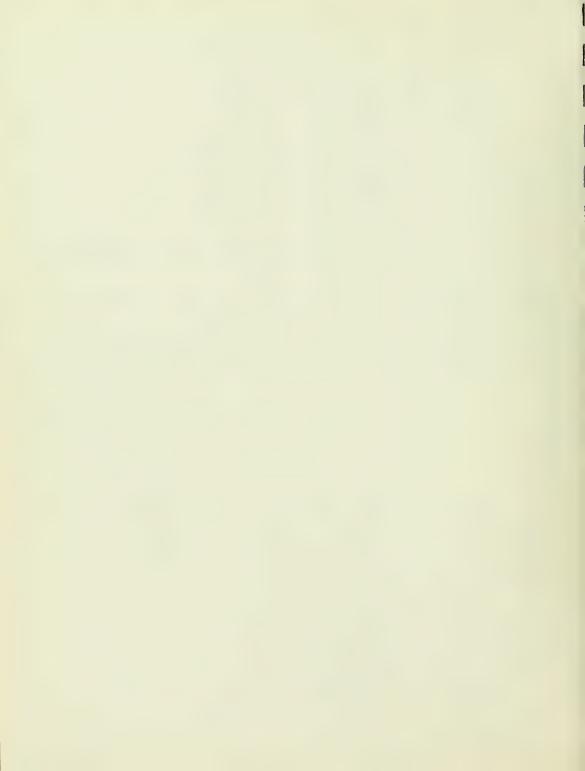
26,000							TOTAL	
•								1
10,000					Allow		Miscellaneous Stairs	
16,000			00	8,000	2	EA		
							Steel nan concrete fill	
							. 1	
							cial Block "C" and West	
							E Demolition and New	1
			ST	UNIT COST	QUANTITY	UNIT	03 SUPERSTRUCTURE	NO.
TOTAL COST							FOLGO OFFI	2
Final	ı		VOLUME C.F.	10A			DATE: FEBRUARY 18, 1983	D
Budget X Prelim	1	701,500	GROSS AREA S.F. 70	GR(INC	ESTIMATED BY: HANSCOMB ASSOCIATES INC	m
RENOV: X ALT:	×.	ON: NEW:	TYPE OF CONSTRUCTION:	TYI			ARCHITECT: KALLMANN, MCKINNELL, WOOD	K
	MA.	BOSTON, MA.	PROJECT LOCATION:	PRO	1		PROJECT: HYNES AUDITORIUM EXPANSION	C _r
m.	Sheet No. 73	Sheet	CONSTRUCTION COST ESTIMATE	ION COST	ONSTRUCT	ö		
			BOSTON	THE, CITY OF BUSTON	THE.			



			тив.	THE, CLIY OF E	OF BUSTON			
		2	NSTRUCT	CONSTRUCTION COST ESTIMATE	ESTIMATE	Shee	Sheet No. 74	
P	PROJECT: HYNES AUDITORIUM EXPANSION		1	PROJ	PROJECT LOCATION:	BOSTON, MA.	MA.	
¥	ARCHITECT: KALLMANN, MCKINNELL, WOOD			TYPE	TYPE OF CONSTRUCTION:	rion: New:	. X RENOV:	V: X ALT:
Ħ	ESTIMATED BY: HANSCOMB ASSOCIATES INC	NC		GROS	GROSS AREA S.F. 701,500	701,500	Budget	Budget X
D,	DATE: FEBRUARY 18, 1983			NOF	VOLUME C.F.		Final	a1
LINE	NOITGIBOSSON METITON							TOTAL COST
Ö.	04 EXTERIOR CLO	UNIT	QUANTITY	UNIT COST				
-	F. Demolition and New							
	cial Block "C" and West							
	Court							
	Glass curtain wall sys	SF	37.184	50 00				1 859 200
	ın e			1				002 (700 (2
	doors	EA	9	10000 00				60,000
	Exterior soffits	SF	6,144	9 9				36,864
						•		
			-				·	
1								
	TOTAL							1,956,064
_								



			THE.	THE CITY OF BOSTON	OSTON			
		2	NSTRUCT	CONSTRUCTION COST ESTIMATE	ESTIMATE	Shee	Sheet No. 75	
PR	PROJECT: HYNES AUDITORIUM EXPANSION		1	PROJ	PROJECT LOCATION:	BOSTON, MA.	MA.	1
AR	ARCHITECT: KALLMANN, MCKINNELL, WOOD		1	TYPE	TYPE OF CONSTRUCTION:	rion: NEW:	. X RENOV:	V: X ALT:
ES	ESTIMATED BY: HANSCOMB ASSOCIATES INC	NC .		GROS	GROSS AREA S.F.	701,500	Budget Prelim	get X
DA	DATE: FEBRUARY 18, 1983			NOTO	VOLUME C.F.		Final	a1
I I	1							TOTAL COST
, S	05 ROOFING	TIND	QUANTITY	UNIT COST				
	and		,	·				
	Construction in Commer-							
1	Court							
	IRMA roofing system	SF	43,800	7 00				306,600
	Architectural roof							000
	treatment		ALLOW					100,000
								406.600
	TOTAL					ľ		



			ine.	ing, citi or	MOTEOG			
		ວ	NSTRUCT	TON COST	CONSTRUCTION COST ESTIMATE	She	Sheet No. 76	
P	PROJECT: HYNES AUDITORIUM EXPANSION		ı	PRO,	PROJECT LOCATION:	4; BOSTON,	MA.	
¥	ARCHITECT: KALLMANN, MCKINNELL, WOOD			TYP	TYPE OF CONSTRUCTION:	CTION: NEW:	Y: X RENOV:	OV: X ALT:
щ	ESTIMATED BY: HANSCOMB ASSOCIATES INC	NC		GRO	GROSS AREA S.F.	701,500	Buc	Budget X
D'	DATE: FEBRUARY 18, 1983		<i>:</i>	VOL	VOLUME C.F.		Ft.	Final
IN	ACITO COLO							TOTAL COST
S.	06 INTERIOR CON	UNIT	QUANTITY	PINIT COST	L			
1				·				
	Construction in Commer- cial Block "C" and West							
	001 B							
	Ubl - Fartitions Interior Partitions and							
	Meeting space	SF	41,000	5 00				205,000
						·		000
	circulation space	SF	38,800	10 00				388,000
							-	
1								
	TOTAL			1		<u> </u>		593,000



			THE.	THE CITY OF BUSION	SUSTON			
		Ö	NSTRUCT	ION COST	CONSTRUCTION COST ESTIMATE	Shee	Sheet No. 77	
P	PROJECT: HYNES AUDITORIUM EXPANSION		1	PRO.	PROJECT LOCATION:	BOSTON, MA.	MA.	1
AF	ARCHITECT: KALLMANN, MCKINNELL, WOOD			TYP	TYPE OF CONSTRUCTION:	TION: NEW:	RENOV:	V: X ALT:
E	ESTIMATED BY: HANSCOMB ASSOCIATES I	INC		GRO:	GROSS AREA S.F.	701,500	Budget	get X
70	DATE: FEBRUARY 18, 1983			NOT	VOLUME C.F.		Final	a1
LINE NO.	ITEM DESCRIPTION	TINI	COLANTITY	TSOO TINII				TOTAL COST
	E Demolition and New							
11	Construction in							
1	cial Block "C" and West		•					
	062 - Interior Finishes							
1.	Mosting enges	GE	7.1 000	. 0				328 000
	Prefunction and	3						250,000
	circulation space	SF	38,800	35 00				1,358,000
							·	
1								

1,686,000

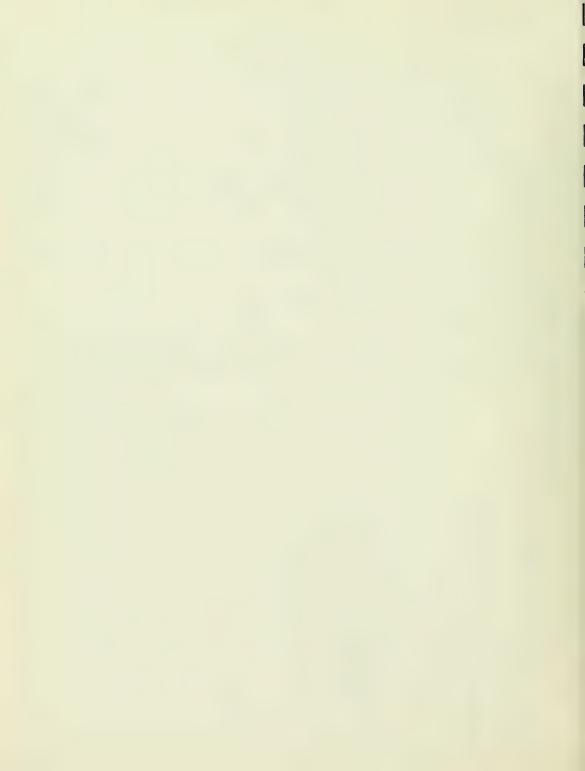
TOTAL



	8	NSTRUCT	TON COST	ESTIMATE	Shee	Sheet No. 78	
OJECT: HYNES AUDITORIUM EXPANSION		1	PRO,	JECT LOCATION		MA.	ı
ARCHITECT: KALLMANN, McKINNELL, WOOD			TYP	B OF CONSTRUC		×	V: X ALT:
ESTIMATED BY: HANSCOMB ASSOCIATES IN	INC		GRO	SS AREA S.F.	701,500	Budg	set X
DATE: FEBRUARY 18, 1983			NOT	JME C.F.		FIne	11
FOIR ONLY							TOTAL COST
	UNIT	QUANTITY		L			
F Demolition and New							
Court							
063 Specialties							
Meeting space	SF	000 17	1				82 000
Prefunction and		17,000	+				00000
circulation space	SF	38,800	5 0	0			194,000
TOTAL		•	1				276,000
PR PR PR PR PR PR PR PR PR PR PR PR PR P		TION WITHOUTION WITHOUTION WINT WITHOUTION WINT WITHOUTION WINT WITHOUTION WINT WITHOUTION WINT TION WITHOUTION WITHOUTION WINT WITHOUTION WINT WITHOUTION WINT CKINNELL, WOOD B ASSOCIATES INC A NEW IN COMMET A NEW IN COMET A NEW IN COMMET A NEW I	TYPE OF CONSTRUCTION STEATMANE	TYPE OF CONSTRUCTION: BOS ASSOCIATES INC GROSS AREA S.F. 701,500 TION NSTRUCTION NOLUME C.F. S S S S S S S S S S S S S	TUN EXPANSION		



			THE.	THE CITY OF BOSTON	. BO	STON				
		2	NSTRUCT	ION COS	T E	CONSTRUCTION COST ESTIMATE	SI	Sheet No.	No. 79	
PF	PROJECT: HYNES AUDITORIUM EXPANSION		1	PI	COJE	PROJECT LOCATION:		BOSTON, MA.		1
AF	ARCHITECT: KALLMANN, MCKINNELL, WOOD			E.	PB	TYPE OF CONSTRUCTION:		NEW:	x RENOV:	V: X ALT:
E	ESTIMATED BY: HANSCOMB ASSOCIATES INC	NC		G	055	GROSS AREA S.F.	701,500		Budget Prelim	et X
D/	DATE: FEBRUARY 18, 1983			Λ	TOM	VOLUME C.F.			Final	11
LINE	MOITGIGOGGG MATI									TOTAL COST
0	07 CONVEYING SYS	TINO	QUANTITY	PINIT COST	ST					
1										
	Construction in Commer-							+		
						=				
	Escalators	EA	2					+		200,000
								+		
								+		
					1			+		
								+		
								-		
								+		
		-								
								-		
					İ			+		
1										
	TOTAL									200,000



			THE.	a 10, 1115 or a	MOTCOG			
		S	NSTRUCT	CONSTRUCTION COST ESTIMATE	ESTIMATE	Sheet No.	No. 80	
24	PROJECT: HYNES AUDITORIUM EXPANSION		ı	PROJ	PROJECT LOCATION:	BOSTON, MA.	. 41	,
A	ARCHITECT: KALLMANN, MCKINNELL, WOOD			TYPE	TYPE OF CONSTRUCTION:	TION: NEW:	X RENOV:	/: X ALT:
Щ	ESTIMATED BY: HANSCOMB ASSOCIATES INC	NC		GROS	GROSS AREA S.F.	701,500	Budget Prelim	et X
П	DATE: FEBRUARY 18, 1983			NOTO	VOLUME C.F.		Final	1
LINE	E TEM DESCRIPTION							TOTAL COST
ž		UNIT	QUANTITY	UNIT COST				
1								
	Construction in Commer- cial Blocks C & West							
	Court							
	Mechanical Summary							
	Plumbing							163.875
	Fire Protection							1_1
	HVAC							1,351,250
	TOTAL ME	MECHANICAL	CAL					1,657,150
]				



LINE NO.

,					ı	
DESCRIPTION						TOTAL COST
	TINU	QUANTITY	UNIT COST	ST		
tion and New						
uction in Commer-						
Nocks C & West						
ing						
tures	EA	75	500			37,500
ing	FS					75,000
rm Sewer	FS					30,000
tal						142,500
ead & Profit 15%		=				21,375

163,875

TOTAL PLUMBING



			THE	THE CITY OF BUSION	USION			
		2	NSTRUCT	CONSTRUCTION COST ESTIMATE	ESTIMATE	Shee	Sheet No. 82	
PI	PROJECT: HYNES AUDITORIUM EXPANSION		i	PROJ	PROJECT LOCATION:	BOSTON, MA.	MA.	
AF	ARCHITECT: KALLMANN, MCKINNELL, WOOD			TYPE	TYPE OF CONSTRUCTION:	TION: NEW:	/: X RENOV:	V: X ALT:
ES	ESTIMATED BY: HANSCOMB ASSOCIATES INC	INC .		GROS	GROSS AREA S.F.	701,500	Budget	get X
ſQ	DATE: FEBRUARY 18, 1983		•	VOLU	VOLUME C.F.		Final	a1
LINE NO.	ITEM DESCRIPTION	TINO	QUANTITY	TSOO TIMI				TOTAL COST
-				_				
	Construction in Commer- cial Blocks C & West							
	Court							
	Fire Protection							1 1
	Sprinkler Heads Fire Hose Cabinets	EA	620	500				108,500 15,000
	Subtotal							123.500
	Overhead & Profit 15%							18,525
	TOTALFIRE	PROTE	PROTECTION					142.025



			ing.	ing, citt or booton	rena	NIO.				
		Ö	ONSTRUCT	CONSTRUCTION COST ESTIMATE	EST	IMATE	She	Sheet No. 83	3	
14	PROJECT: HYNES AUDITORIUM EXPANSION		1	PRC	JECT	PROJECT LOCATION:	BOSTON, MA.	, MA.		
4	ARCHITECT: KALLMANN, McKINNELL, WOOD			TYI	E OF	TYPE OF CONSTRUCTION:		NEW: X	RENOV:	X ALT:
щ	ESTIMATED BY: HANSCOMB ASSOCIATES INC	NC		GRC	A SS	GROSS AREA S.F.	701,500		Budget	z x
Н	DATE: FEBRUARY 18, 1983			VOI	VOLUME C.F.	C.F.		1	Final	
LINE NO.	ITEM DESCRIPTION		> Library						T	TOTAL COST
		ואח	COARILL	PNIT COST	-					
1	E. Demolition and New				+					
	cial Blocks C & West				+				1	
	Court									
	TATA									
	HVAC	O.F			+				1	
1	r	27			+				1	- +
	Terminal Equipment	LS			+					25.000
1	Air Distribution Shoot	FIS			+				\dagger	100,000
		SI			+				+	000 002
	100	S			+				+	200,000
					+				\dagger	200,000
	Subtotal				+					175 000
	Overhead & Profit 15%				-				-	176,250
1					+				1	
					-					
					+					
					-					
					-				+	
					+				†	
	TOTAL H	HVAC					-1			1,351,250



84	RENOV: X ALT: Budget X Prelin Final	TOTAL COST			480,000	000,027	72,000	000,4	24,000	30,000	25,000			220,000		3.000							1,126,000
Sheet No. 8	BOSTON, MA. INEW: X REP SOO PP																						
	TION: N																						
STIMATE	PROJECT LOCATION: BO TYPE OF CONSTRUCTION: GROSS AREA S.F. 701,50																						
CONSTRUCTION COST ESTIMATE	PROJE TYPE GROSS	UNIT COST																					
ONSTRUCTI	1.1.	QUANTITY																					
ວັ	l l l l l l l l l l l l l l l l l l l	UNIT			LS	ST	100	LS	LS	LS	LS			ΓS		LS						1	
	PROJECT: HYNES AUDITORIUM EXPANSION ARCHITECT: KALLMANN, MCKINNELL, WOOD ESTIMATED BY: HANSCOMB ASSOCIATES INC DATE: FEBRUARY 18, 1983	ITEM DESCRIPTION	E. Demolition and New	10	Power & Distribution	Lighting	Fire Alem	Radio & TV System	Clock System	Sound Paging	Wireless Paging	Intrusion Alarm & Video	System w/ Command	Control System	Exterior Door Intercom	System							. TOTAL
	PR(AR(EST DAT	LINE NO.																					

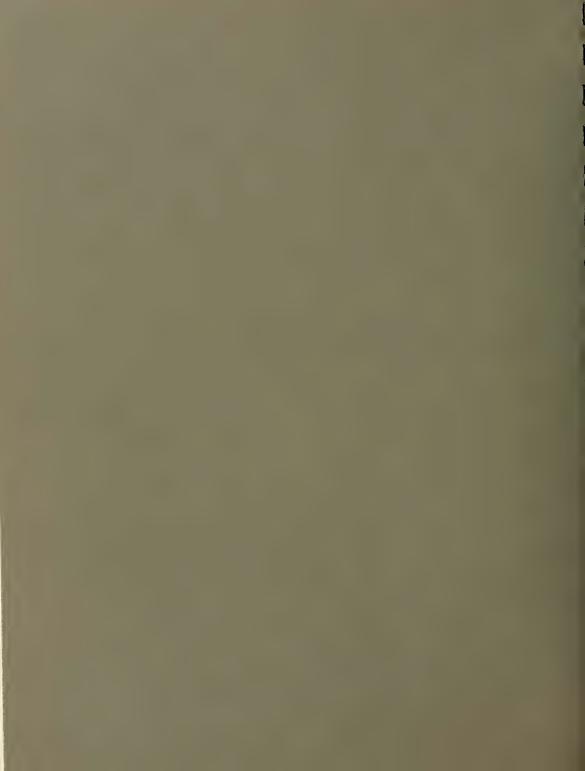


			INE.	THE CITY OF BUSION	BUSTON			
		ö	NSTRUCT	ION COST	CONSTRUCTION COST ESTIMATE	Sh	Sheet No. 85	
D.	PROJECT: HYNES AUDITORIUM EXPANSION		1	PRC	PROJECT LOCATION:	BOSTON, MA.	MA.	
¥	ARCHITECT: KALLMANN, MCKINNELL, WOOD		1	TYF	TYPE OF CONSTRUCTION:	TION: NEW:	V: X RENOV:	V: X ALT:
Щ	ESTIMATED BY: HANSCOMB ASSOCIATES INC	NC		GRC	GROSS AREA S.F. 701,500	701,500	Bud	Budget X
Д	DATE: FEBRUARY 18, 1983			VOI	VOLUME C.F.		Final	.a.1
L	TEM DESCRIPTION							TOTAL COST
ő.	12 SITEWORK	UNIT	QUANTITY	UNIT COST	T			
-	E Demolition and New Construction in Commer-							
	cial Block "C" and West							
	g.							
	bemolish retail stores in commercial Block C	SF	36.000	5	00			180 000
	ate							
	Court plaza	SF	18,500	10 0	00			185,000
	TOTAL							365,000



Cost Analysis

General Conditions & Profit



			THE.	THE CITY OF BUSION	RUS	NOIS				,
		S	CONSTRUCTION COST ESTIMATE	ION COS	T ES	STIMATE		She	Sheet No. 86	
PR	PROJECT: HYNES AUDITORIUM EXPANSION		1	PR	OJEC	PROJECT LOCATION:	BOSTON, MA.	ON,	MA.	1
AR	ARCHITECT: KALLMANN, McKINNELL, WOOD			TY	PE (TYPE OF CONSTRUCTION:		NEW:	X RENOV:	V: X ALT:
ES	ESTIMATED BY: HANSCOMB ASSOCIATES INC	NC		GR	055	GROSS AREA S.F. 701,500	701,500		Bud	Budget X Prelim
DA	DATE: FEBRUARY 18, 1983			NO	LUME	VOLUME C.F.			Final	la1
LINE	TEM DESCRIPT									TOTAL COST
SO.	GENERAL CONDITIONS, OVERHEAD AND PROFIT	UNIT	QUANTITY	PNIT COST	ST					
	SUMMARY									
	Conoxol Conditions									
	General Conditions				+					3.104.000
	Overhead and Profit									2,988,000
					+					
					\dagger					
					+					
					+					
					+					
					╁					
					+					
	TOTAL (Prorated to eacn component of work)	nent o	f work)		1					6,092,000



		00	THE.	THE CITY OF BOSTON RUCTION COST ESTIM	CONSTRUCTION COST ESTIMATE	Shee	Sheet No87	
Δ,	PROJECT: HYNES AUDITORIUM EXPANSION		1	PRC	PROJECT LOCATION:	BOSTC	. 11	1
A	ARCHITECT: KALLMANN, MCKINNELL, WOOD		1	TYI	TYPE OF CONSTRUCTION:	TION: NEW:	X RENOV:	V: X ALT:
m	ESTIMATED BY: HANSCOMB ASSOCIATES INC	NC		GRO	GROSS AREA S.F.	701,500	Bud Pre	Budget X
D'	DATE: FEBRUARY 18, 1983			VOI	VOLUME C.F.		Final	a1
LINE								TOTAL COST
2		UNIT	QUANTITY	UNIT COST	TS			
-	Supervision don't	MOG	7.6	00007	00			180 000
	Assistant Superintendent	MOS	. 27		00			4 .
	Project Manager	MOS	27		00		_	162,000
	Assistant Project Manager	MOS	77	4000	00			108,000
	Layout and survey crew	MOS	15	8000	00			120,000
	Scheduler	MOS	27	4000	00			108.000
	Safety Inspector	MOS	27		00			108,000
	Office Clerks and Secretary							
		MOS	27	0009	00			162.000
	Timekeeper	MOS	27	3000	00			81,000
	Delivery Clerk	MOS	27	3000	000			81,000
	Security (2 people)	MOS	27	8000	00			216,000
	. TOTAL							
1	Control of the Contro	Contract of the last	And desired the second second	-	The state of the s	The state of the s	A STATE OF THE PARTY OF THE PAR	

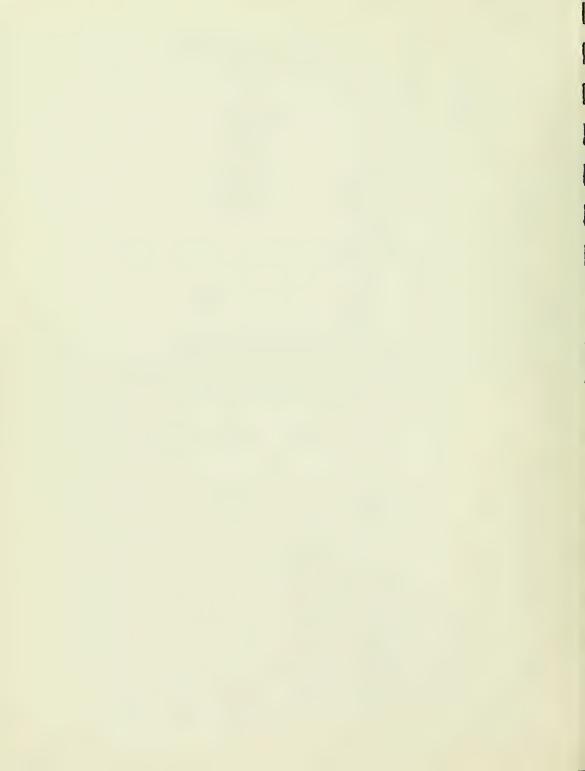


	1	RENOV: X ALT	Budget X Prelim	Final	TOTAL COST		1	32,000	40.000	27,000	27,000	42.000			135,000	17, 000	5,000	8,000	. 14,000	30,000	50,000		000 009	80,000	000,09				
Sheet No. 88	MA.	×	A A	e i																									
Sho	BOSTO	TION: NEW:	701,500																										
STIMATE	PROJECT LOCATION:	TYPE OF CONSTRUCTION:	GROSS AREA S.F.	VOLUME C.F.																									
ST E	ROJE	YPE (ROSS	OLUMI		DST	$\overline{}$	900	00		00	00	1	-	000		7		00	00	j					1	İ		
ION CO	A.	H	9	>		UNIT COST		1200	1000	1000	1000	3000		-	1600	2000	200	300	500	1100									
CONSTRUCTION COST ESTIMATE	1	1	И.			QUANTITY		27	27	27	27	14			17	46	27	27	27	27	7				-				
S			NC I			TINO		MOS	MOS	MOS	MOS	MOS		0000	MOS	MOS	MOS	MOS	MOS	MOS	LS				I.S				
	PROJECT: HYNES AUDITORIUM EXPANSION	ARCHITECT: KALLMANN, MCKINNELL, WOOD	ESTIMATED BY: HANSCOMB ASSOCIATES INC	DATE: FEBRUARY 18, 1983			TEMPORARY FACILITIES:	Office trailers (2 ea) Storage trailers (2 ea)	Hoardings and barriers	Heat, light, a/c/telephone	Construction water and power	Winter heating	HNUM		(Krano = material Chandling	+ te	Cars (2 ea)	Pickups (2 ea)	Small tools	Cleanup interim	Cleanup final	n 1 19/	Bond 2%	Permits and Fees 1/10%	Photographs. CPM submittals				
	PJ	A	m	D/	INI	S. O.	-					-																1	

3,104,000

TO SUMMARY

TOTAL



			THE.	THE, CITY OF BOSTON	200	STON				
	HYNES AUDITOBIUM EXPANCION	S	CONSTRUCTION COST ESTIMATE	TON COS	T	STIMATE		Sheet No. 89	89	
۵	ROJECT:		1	PI	OJE	PROJECT LOCATION:		BOSTON, MA.		
A	ARCHITECT: KALLMANN, McKINNELL, WOOD			T	PE (TYPE OF CONSTRUCTION:	rion:	NEW: X	RENOV:	/: X ALT:
щ	ESTIMATED BY: HANSCOMB ASSOCIATES INC	NC		GH	2003	GROSS AREA S.F.	701,500		Budget	set X
D.	DATE: FEBRUARY 18, 1983			A	LUMI	VOLUME C.F.			Final	
LINE	ITEM DESCRIPTION									TOTAL COST
2	OVERHEAD AND PROFIT	UNIT	QUANTITY	DINIT CC	COST					
11	fice overhea									
	general contractor fee:									2.988.000
									1	
									T	
					1				1	
					+					
					+					
					1					
					+					
	TOTAL TO	TO SUMMARY	RY .						İ	2,988,000



Cost Analysis

Escalation



		ວ	NSTRUCT	TON COST	CONSTRUCTION COST ESTIMATE			Sheet No.	. 90		
PR	PROJECT: HYNES AUDITORIUM EXPANSION		1	PRC	PROJECT LOCATION:	TION:	BOSTO	BOSTON, MA.		,	
AR	ARCHITECT: KALLMANN, MCKINNELL, WOOD		ı	TYI	TYPE OF CONSTRUCTION:	TRUCTI		NEW: X	RENOV:	/: X ALT:	
ES	ESTIMATED BY: HANSCOMB ASSOCIATES INC	NC		GRC	GROSS AREA S.F. 701,500	.F. 70	1,500		Budget	et X	
DA	DATE: FEBRUARY 18, 1983			VOI	VOLUME C.F.				Final	1	
LINE NO.	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	Ŧ					TOTAL COST	
	F. Escalation										П
	Construction Period = 27 months	hs									T
	Start: November 1, 1983										
	Midpoint: December 15 1984										
											П
	Assume prices good for six months										11
	Escalation: August 15, 1983										T
	= December 15, 1984										
34200	2 (A) (B) com 3 =										
	- 10 mos e 10% p.a.					+					
	= 13.3% of \$76,031,000									10,112,000	
											П
											T
TO COMMON											\Box
											\top
						+					
•											
										000 611 01	T
	. TOTAL									10,112,000	1

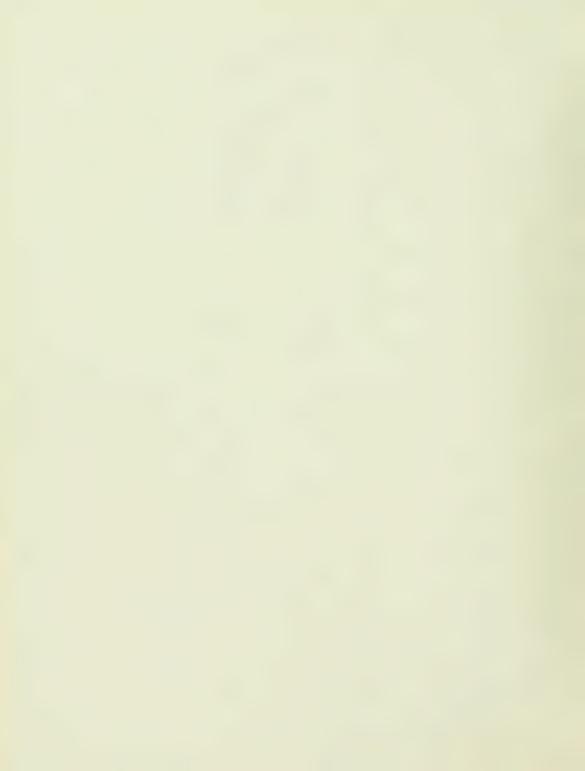


Cost Analysis

Phasing Premium



		2	CONSTRUCTION COST ESTIMATE	TON COS	TES	STIMATE		S	Sheet No. 91		
PR	PROJECT: HYNES AUDITORIUM EXPANSION		,	PR	OJEC	PROJECT LOCATION:	BOSTON, MA.	N,	ма.	!	
AR	ARCHITECT: KALLMANN, McKINNELL, WOOD		1	TY	PE (TYPE OF CONSTRUCTION: NEW:	TION: N	VEW:	X RENOV:	V: X ALT:	
ES	ESTIMATED BY: HANSCOMB ASSOCIATES INC	NC		GR	055	GROSS AREA S.F.	701,500		Bud	Budget X Prelim	
DA	DATE: FEBRUARY 18, 1983			ΛO	LUME	VOLUME C.F.			Final	al	·
INE	MOITGING DESCRIPTION									TOTAL COST	
0.0		UNIT	QUANTITY	UNIT COST	ST						
	G. Phasing Premium							П			, -,
	Summary		•					T			
	Architectural/Structural									000	
	יייייייייייייייייייייייייייייייייייייי				\dagger					300,000	
	Mechanical				H					500,000	 -
43/10/4	Flectrical				+					1 556 000	
	1274-127				\dagger					000,000,	
	General Conditions							П		812,000	, , ,
S de les les	Escalation				+					3 802 000	
1000					\dagger			T		2,002,000	
-											
N. W. W.					+						
					Ť						
THE A											
					+			T			
					+						,
					+			T		٠	
	, TOTAL									6,970,000	



92 ENOV: X ALT: Budget X Prelin Final	TOTAL COST	100,000	300,000
t No.			
Shee ON: BOSTON, MA. JCTION: NEW: 701,500			
PROJECT LOCATION: BC TYPE OF CONSTRUCTION: GROSS AREA S.F. 701,50			
CONSTRUCTION COST ESTIMATE PROJECT LOCA' TYPE OF CONS' GROSS AREA S VOLUME C.F.	UNIT COST		ı
DNSTRUC 	QUANTITY		
NC NC	TINO		
PROJECT: HYNES AUDITORIUM EXPANSION ARCHITECT: KALLMANN, MCKINNELL, WOOD ESTIMATED BY: HANSCOMB ASSOCIATES INC DATE: FEBRUARY 18, 1983	ITEM DESCRIPTION G. Phasing Premium	Architectural/Structural Phase I Phase II Phase III	TOTAL
PR(ARC)	NO.		

THE CITY OF DOSION



P.F	PROJECT: HYNES AUDITORIUM EXPANSION	ŏ	THE.	ION CO	F BC ST F	CONSTRUCTION COST ESTIMATE PROJECT LOCATION:		Sheet Boston, MA.	No. 93	
AF	ARCHITECT: KALLMANN, MCKINNELL, WOOD ESTIMATED BY. HANSCOMB ASSOCIATES INC	NC		j +j	YPE	TYPE OF CONSTRUCTION:		NEW:	×	ENOV: X ALT:
A D	1 1			5 X	OLUN	VOLUME C.F.	/01,500		Prelin Final	
LINE NO.	ITEM DESCRIPTION MECHANICAL	TINO	QUANTITY	DILL C	COST					TOTAL COST
11	G. Phasing Premium				Ш					
	Phase I	I.S								150,000
	Phase II	LS								100,000
	Phase III	LS								250,000
	. TOTAL MECHANICAL	HANICA	T			-				500,000



		8	NSTRUCT	THE CILL OF BUSION RUCTION COST ESTIM	CONSTRUCTION COST ESTIMATE			Sheet	Sheet No. 94		
PF	PROJECT: HYNES AUDITORIUM EXPANSION		3	PRC	PROJECT LOCATION:	TION:	BOSTO	BOSTON, MA.		1	
AF	ARCHITECT: KALLMANN, MCKINNELL, WOOD			TYF	TYPE OF CONSTRUCTION:	TRUCTION		NEW: X	RENOV:	×	ALT:
E	ESTIMATED BY: HANSCOMB ASSOCIATES INC	NC		GRO	GROSS AREA S.F.	•	701,500		Budget Prelim	get X	11
70	DATE: FEBRUARY 18, 1983			IOA	VOLUME C.F.				Final	al	1
LINE	NOITGIGGGGG MATE									TOTAL C	COST
₩ 0.	ELECTRICAL	UNIT	QUANTITY	UNIT COST	T						
	G. Phasing Premium Considering that the main										
	11 be comp	letely									
	areas within the building	will									
	remain action a temporary							+			
	131										
		51								800	000
	remporary service	CI									
	Since the Building will							+			
	or shift work will have										
	A-F (7 560 000						-			
		2001									
	Overtime & Shift Work	LS								756.0	000
								-			
	TOTAL									1,556,000	000



ENOV: X ALT: Budget X Prelim Final	TOTAL COST	3,916,000 (3.104,000)	
x R			
Boston, ION: NEW			
PROJECT LOCATION: BOTYPE OF CONSTRUCTION: GROSS AREA S.F. 701,50			
CONSTRUCTION COST ESTIMATE PROJECT LOCA TYPE OF CONS GROSS AREA S VOLUME C.F.	INIT COST		
ONSTRUCT	QUANTITY		
linc	TINO		
PROJECT: HYNES AUDITORIUM EXPANSION ARCHITECT: KALLMANN, MCKINNELL, WOOD ESTIMATED BY: HANSCOMB ASSOCIATES INC DATE: FEBRUARY 18, 1983	ITEM DESCRIPTION G. PHASING PREMIUM	General Conditions 39-month contract period Deduct 27-month contract period Toral	
PR(AR(ES)	LINE NO.		



PR	PROJECT: HYNES AUDITORIUM EXPANSION		1	PROJ	PROJECT LOCATION:	1	BOSTON, MA.		ı	
AR	ARCHITECT: KALLMANN, MCKINNELL, WOOD		1	TYPE	TYPE OF CONSTRUCTION: NEW:	HION: N	EW: X	RENOV:	V: X ALT:	
ES	ESTIMATED BY: HANSCOMB ASSOCIATES INC	NC		GROS	GROSS AREA S.F.	701,500		Budget	Set X	
DA	DATE: FEBRUARY 18, 1983			VOLU	VOLUME C.F.		1	Final	11	
LINE	ITEM DESCRIPTION								TOTAL COST	
o Z		UNIT	QUANTITY	UNIT COST						
	G. Phasing Premium									П
	Escalation:									
	Construction period increased by 12 months									
	Midpoint: June 15, 1984									
	Escalation:									
	22 mas (2 10% m 3									
	22 mos & 10% p.d.						-			T
	= 18.3% f. 76,031,000								13,914,000	TI
	Dadinot. Room office for 37									T
	peri								(10,112,000)	
										T
										П
										T
										П
							-			T
	TOTAL								3,802,000	1 1

Sheet No. 96

CONSTRUCTION COST ESTIMATE



Cost Analysis

Furniture, Fixtures & Equipment

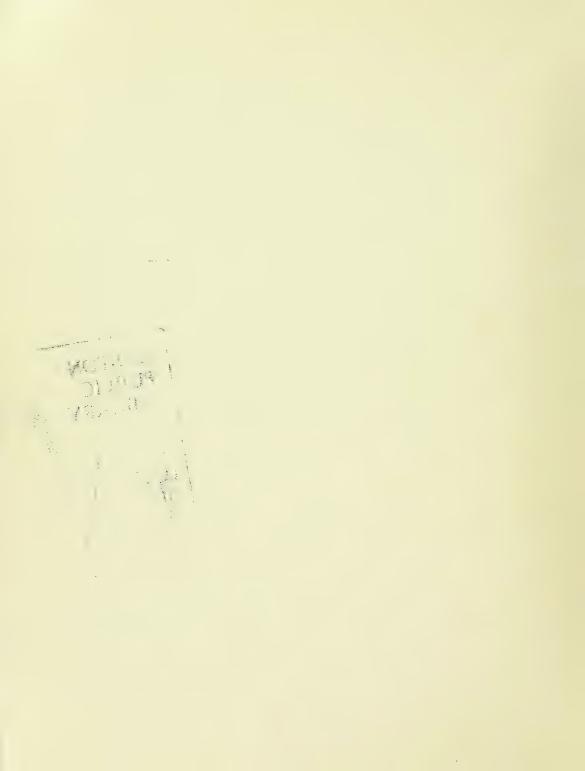


4,752,000

TOTAL





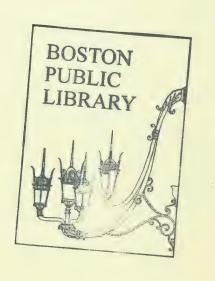


BRA 599 Vol. 4

HYNES AUDITORIUM EXPANSION BOSTON, MASSACHUSETTS

Final Report (Volume IV)

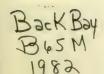
Additional Investigations - Proposals



CITY OF BOSTON Kevin H. White, Mayor

BOSTON REDEVELOPMENT AUTHORITY Robert J. Ryan, Director

PUBLIC FACILITIES DEPARTMENT Donald B. Manson, Director





INTRODUCTION:

The following investigation proposals have been incorported into the Final Report at the request of the Boston Redevelopment Authority. Of paramount importance to the Design Development process, the consultants have recommended that this investigatory work be carried out as soon as possible.



Additional Investigations – Proposals Soils & Piles



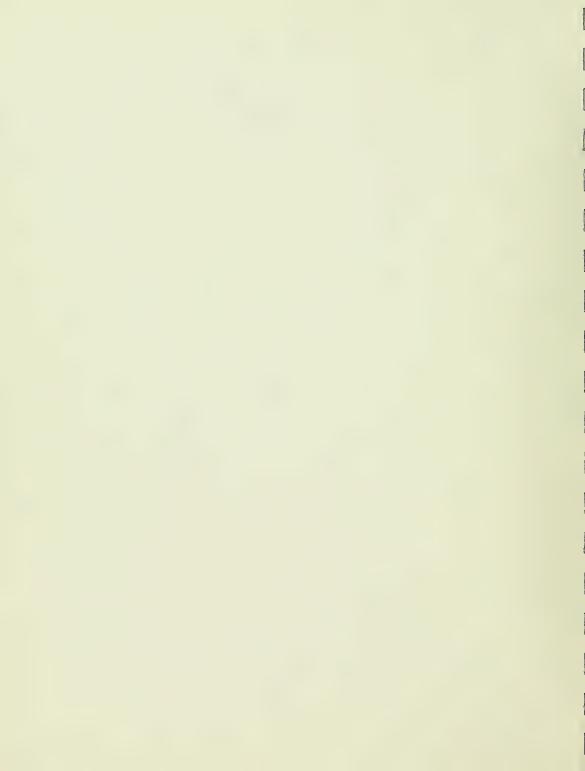
Hynes Auditorium Expansion 17 January 1983

SCOPE OF WORK AND ESTIMATE OF PROBABLE COST -ADDITIONAL INVESTIGATIONS

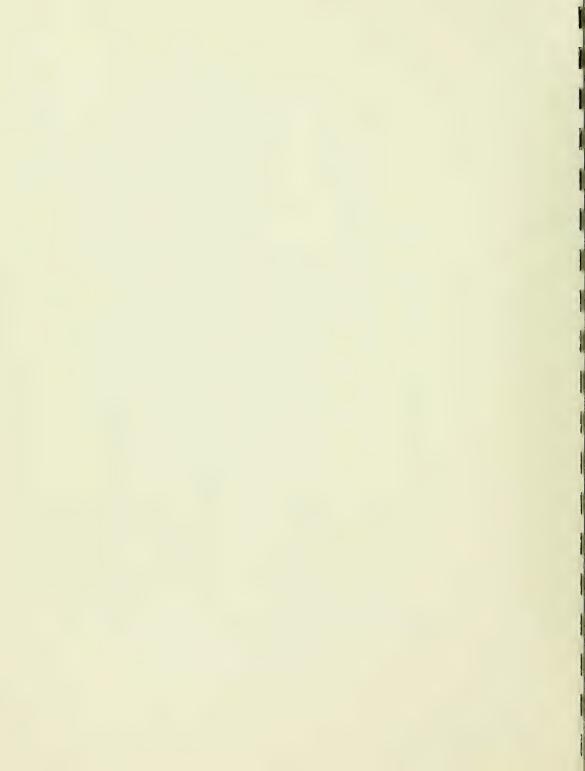
Asidiscussed in Section C, "Options and Recommendations", additional investigations were recommended in order to provide information necessary to develop final project design. The scope of work and estimated probable cost for each of the additional investigations are summarized below. For convenience, the estimated costs for H&A services and for Contractors have been shown separately.

The estimated Contractor cost ranges are very preliminary since specific locations and details have not been identified. The work must be performed by qualified, specialty contractors.

Of particular importance to the development of the proposed project are items 1 and 2 discussed below. It is, therefore, recommended that these additional investigations be carried out as soon as possible.



ESTIMATED COSTS H&A CONTRACTOR	\$4,000	\$5,000	\$7,000 \$100,000 to 180,000 \$16,000 \$100,000 to 180,000
MORK TASK DESCRIPTION PY PY PY PY PY PY PY PY PY PY PY PY PY P	 Perform additional analyses with regard to allowable load increases on piles. Preparation of memorandum presenting results of investigation. (It has been determined that Metcalf & Eddy, Inc. have on file the installation records for piles in AREA A-1 and possibly A-2, E-1 and E-2. The records for piles in AREA E-5 have not been located to date.) 	 B. Perform load tests on selected existing foundation piles. Preparation of Test Pile Program Prepare contract documents (drawings and specifications) outlining the scope of proposed work for bidding purposes. review contractor's submittals prior to testing program Field Testing excavate a sheeted, dewatered test pit around selected pile(s) for installation of load test apparatus. 	nent data. ngineering report

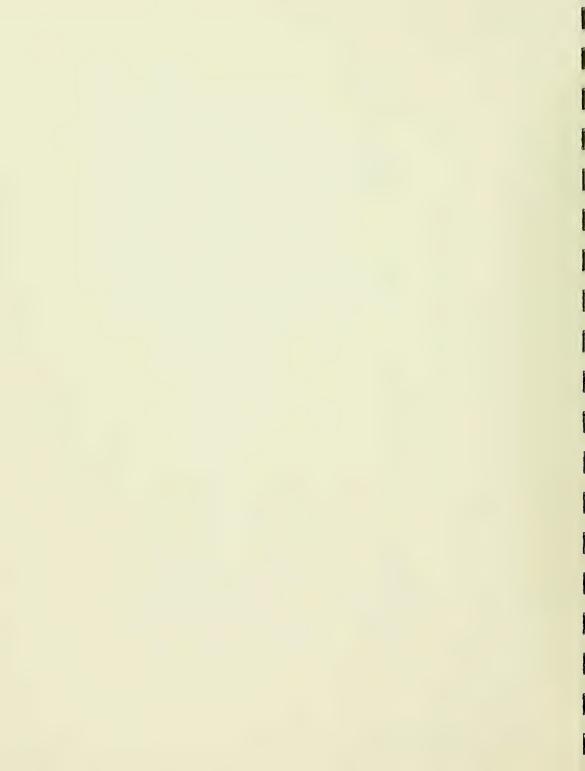


TILE NO. 4964

\$40,000 to 80,000 \$40,000 to 80,000



				\$8,000	\$8,000
				\$14,000	\$14,000
ST BORING PROGRAM	Develop program and prepare contract documents: (drawings and specifications) outlining scope of proposed work for bidding purposes.	Assume 3 test borings, one of which would be drilled into the underlying rock stratum, with recovery of undisturbed samples of clay for laboratory testing,	Full time monitoring of test boring program	Evaluate data and prepare report presenting results of investigation and recommendations	SUBTOTAL
TEST	I	ł	ı	1	
m.					



H 4.	AL	E
REVIEW	SUBWAY	
AND		
REVIEW AND EVALUATION OF THE IMPACT OF PROPOSED CONSTRU		
OF		
THE		
IMPACT		
OF		
PROPOSED		
CONSTRUCTION ON THE		
NO		
THE		

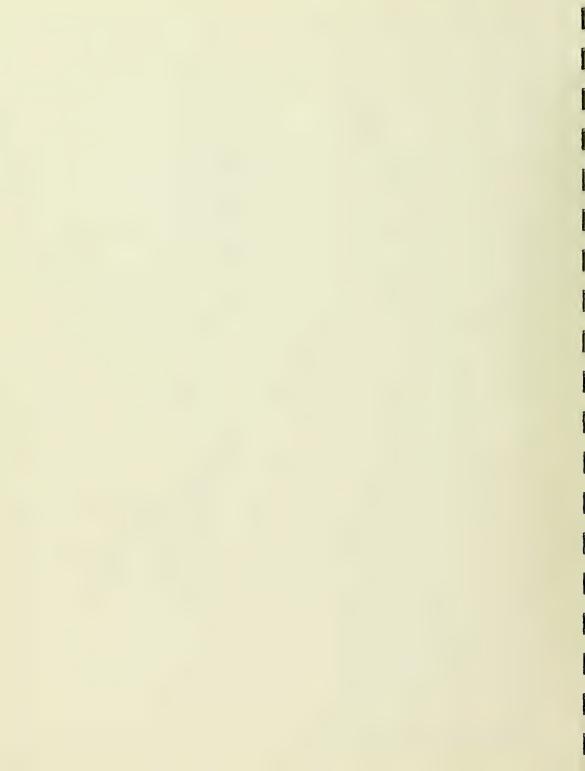
ADJACENT

Obtain and review plans and drawings of the existing subway under Boylston Review the proposed expansion schemes with regard to the location of the existing subway, with particular attention to the proposed foundation Street to determine its lateral limits and depths.

\$2,000

\$2,000

SUBTOTAL



Additional Investigations – Proposals

Energy Study



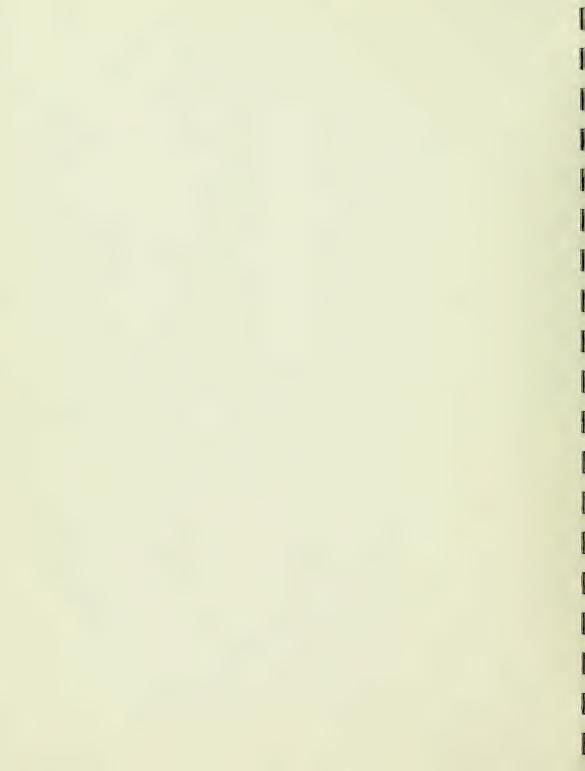
TMP CONSULTING ENGINEERS, INC.

PROPOSAL FOR

HVAC SYSTEM ENERGY ANALYSIS

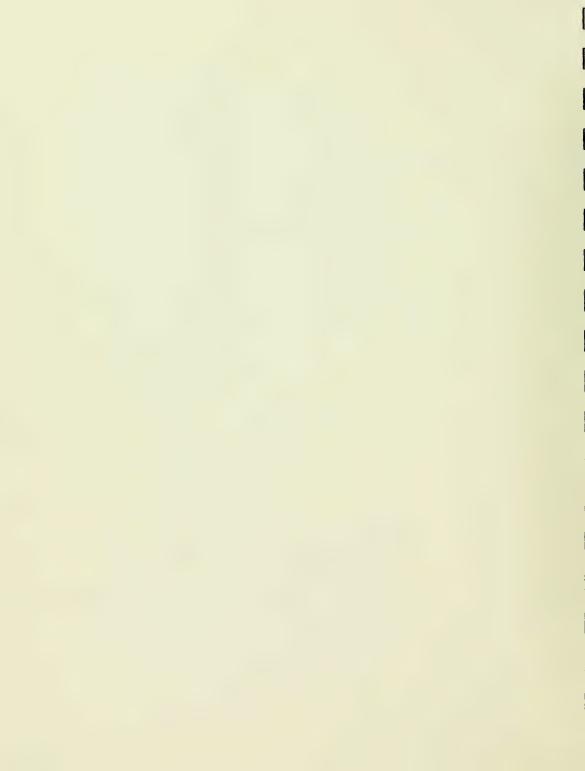
HYNES AUDITORIUM

EXPANSION and RENOVATION



INDEX

- A. INTRODUCTION.
- B. CAPABILITIES and EXPERIENCE.
- C. DESIGN ALTERNATIVES/STUDY METHODOLOGY.
- D. TERMS OF PROPOSAL.
- E. FEE PROPOSAL TABLE.



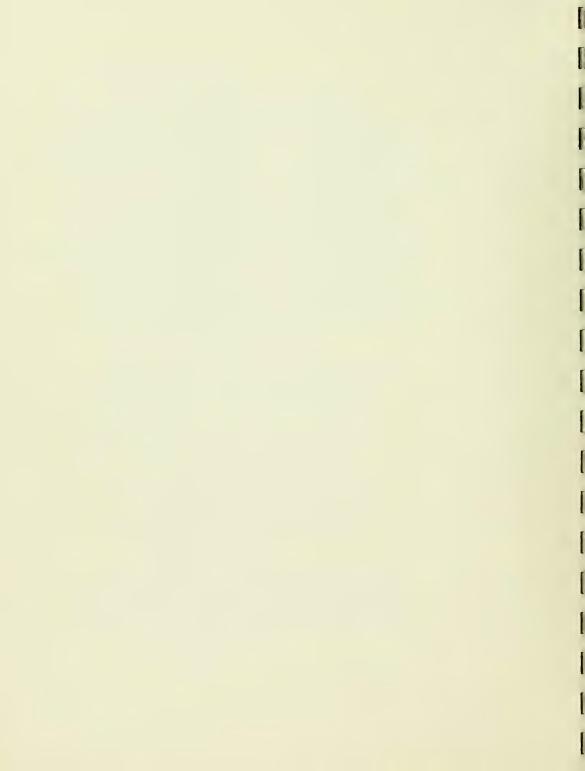
A. INTRODUCTION

Energy, operating and maintenance cost for the new Hynes
Auditorium will be a major percentage of the overall facility
expenses. Before committing to specific system design which will
directly impact this expenditure, it is prudent to further investigate the elements that contribute to these ongoing costs. The
time to conduct this investigation is now.

The majority of operating costs relate to building energy use and the response of the mechanical heating, ventilating and air conditioning systems to the operational requirements of the project. To properly evaluate the economic impact of space utilization and mechanical system selection requires that a computerized energy simulation analysis be conducted. This study will give the Owner the ability to review system selection from a number of energy efficient systems

A computerized energy analysis can be expected to identify energy efficient mechanical systems and operating strategies that will significantly reduce operating costs. The impact of capital dollar investments in conservation strategies can then be properly evaluated in terms of the life cycle costs that consider capital, energy and maintenance costs for these alternatives over the economic life of the project. An additional benefit of the energy study will be to yield cooling and heating load data that can be applied to economic sizing and selection of equipment for design point and part load evaluation.

This proposal outlines the capabilities of TMP Consulting Engineers to perform these analyses, the alternatives available and recommended for analyses, the methodology to be employed and the related costs to perform this work.



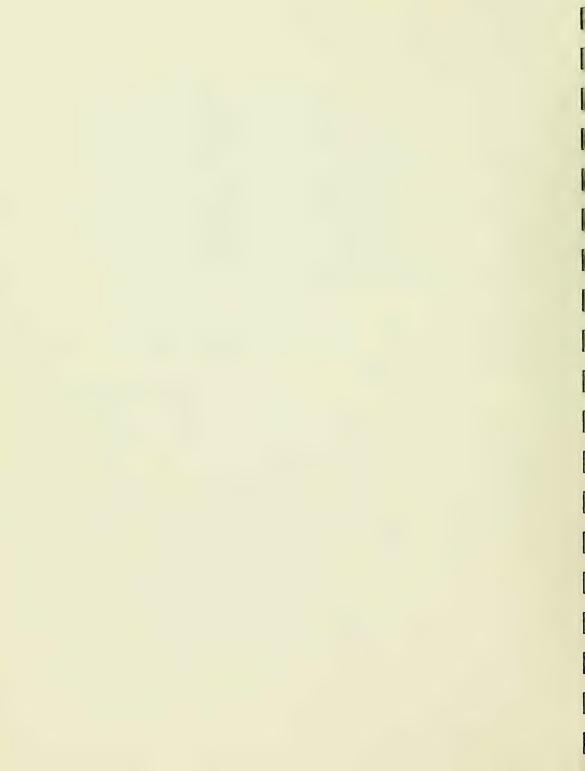
B. CAPABILITIES AND EXPERIENCE

TMP Consulting Engineers have been active participants in the development of effective computerized energy evaluation tools, including eleven years of research and development in computerized design, and through our membership in APEC (Automated Procedures for Engineering Consultants). One result of these efforts has been the successful release of the APEC ESP-II Building Energy Use Simulation Program. This computer program is unique in its ability to evaluate thermal storage and heat pump energy use strategies, and to output metered data that can be analyzed by applying local rate structures, in a special Utility Rate program developed by TMP.

TMP conducts extensive computerized studies of most projects it undertakes, to a level required by the Client. Some of the recent projects analyzed include:

World Financial Center, New York City	7,000,000	sq. ft.
One Commercial Plaza, Hartford, Conn.	600,000	sq. ft.
Dallas Main Center, Dallas, Texas	1,900,000	sq. ft.
One Financial Plaza, Springfield, Mass.	350,000	sq. ft.
Bank of Nove Scotia, Toronto, Ontatio, Canada	1,365,000	sq. ft.
CN Convention Centre, Toronto, Ontario, Canada	1,400,000	sq. ft.
Sunlife Assurance Company, Calgary, Alberta, Canada	285,000	sq. ft.
Tufts New England Medical Center, Boston, Mass.	122,000	sq. ft.
Biewend Building		

Project Size



C. DESIGN ALTERNATIVES/STUDY METHODOLOGY

The basic study listed below as Option #1 will include investigation of capital vs. operating cost for the following systems that, in our judgement, are the most viable.

 All Electric, Heating and Cooling vs.

Electric Cooling, Steam Heating

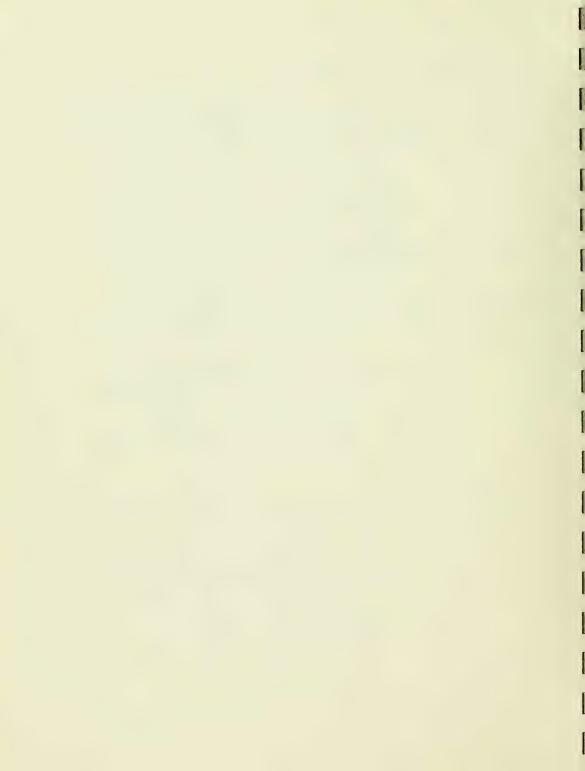
Other alternatives that are less viable but that may warrant further investigation include:

- 2) All steam, heating and cooling.
- 3) Thermal storage (water) for electrical demand control and cost reduction in conjunction with reduced time-of-day utility rates.
 - (a) Thermal storage requires considerable space. The ability to incorporate this space into the building structure or onto the site is not necessarily a possibility. We will first look at the size requirement. Then if this has potential we will do the actual thermal storage study.
- 4) Ice Storage:

Alternate to thermal water storage because space requirements are considerably less.

5) Heat Pump Chillers:

For recovery and storage of internal heat gains for day and night heating.



D. TERMS OF PROPOSAL

The reimbursement for consulting engineering services will be in accordance with the fee table shown on the following page, plus computer charges. As computer costs are subject to variations beyond our control, we must invoice these charges separately. For budget purposes, we include estimates of these charges. The base analysis includes for:

- (1) assimilation of weather data.
- (2) preparation of envelope response factors.
- (3) development of thermal loads model, including space descriptions and profiles of occupancy and power requirements.
- (4) development of systems model for base mechanical systems.
- (5) analysis of output energy results.
- (6) computation of applicable utility charges for projected energy use.
- (7) life cycle cost analysis.

Prices are based on an eight week working schedule to precede beginning of Design Phase of working drawings. Premium for overtime, if report required earlier are not included and prices would have to be adjusted accordingly.



. ய

NOTES:

(2)

- Option 4a. and 5a. based on Option 3 also being done. (1)
- because base calculations necessary to these options are included in Option 3. Option 4b. and 5b. based on Option 3 not being done and. therefore, increase

BACK BAY B65M 1982

Hynes Auditorium Expansion

Final Report (Vol.IV)











